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THE SOCIETY OF
NORTH AMERICAN
GOLDSMITHS

# GOLDSMITHS JOURNAL

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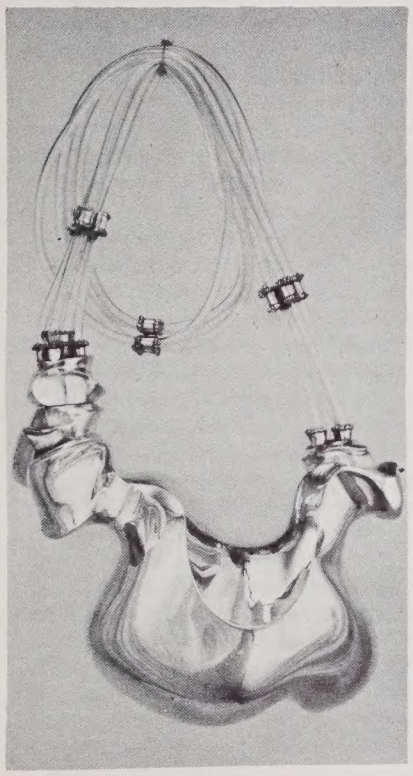
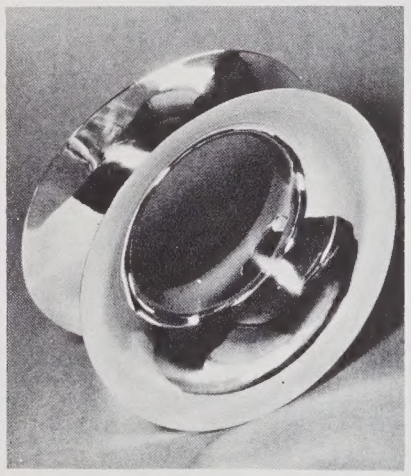
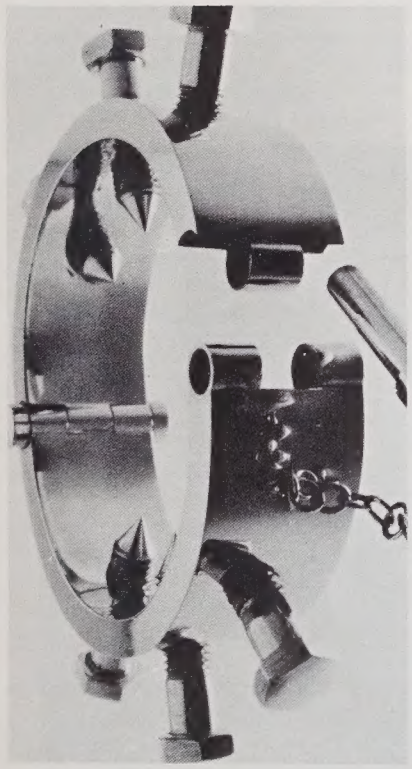
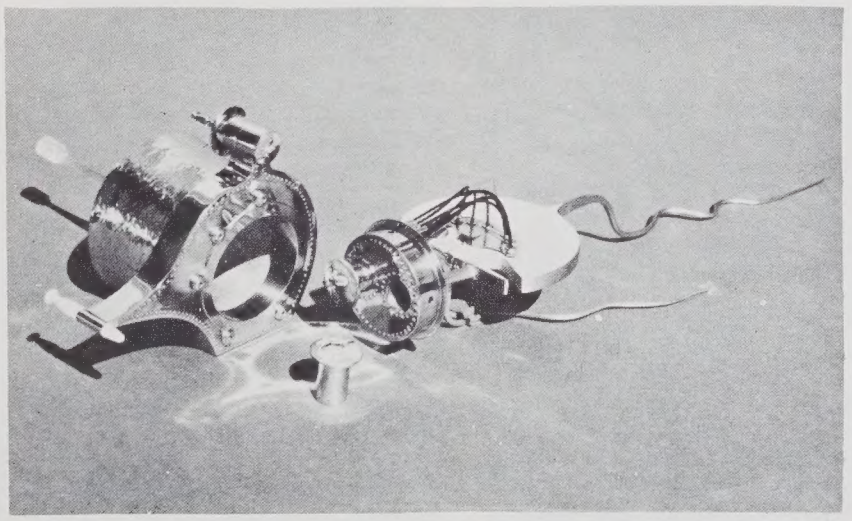
April, 1977









## COPPER, BRASS, & BRONZE EXHIBITION

### AWARDS

| Name | Amount |
|---|---|
| Roger F. Blakley | $1,000 |
| Fred Fenster | 500 |
| Marjorie Strider | 500 |
| Connie Brauer | 300 |
| Quentin J. Brown | 300 |
| Lane Coulter | 300 |
| Stephen J. Daly | 300 |
| Patricia J. Daunis-Dunning | 300 |
| Michael E. Jantzen | 300 |
| Daniella Kerner | 300 |
| James A. Nedresky | 300 |
| Beverly S. Sahn | 300 |
| Douglas C. Swain | 300 |

HONORABLE MENTION
Steve Brisken
Barbara Ingerski-Mann
Leslie G. Leupp
Jon G. Palmer
Helen Z. Shirk
Ann G. Still

(photos clockwise, starting top left)

Daniella Kerner
"Canteen"
Copper, vinyl

Fred Fenster
"Cooking Pots", Copper

Bruce Clark
"Catch that Rat you Turkey" (trap)
Copper, Brass, Iron

Don M. Johnson
"Pin Strip '52", Brass

Sandra D. Callison-Guerand
Choker, Brass, Copper

(center)

Hans Christensen
"Rest", Brass

## INTRODUCTION

So many factors coalesce to precipitate an exhibition such as the Copper, Brass, and Bronze competition that it is difficult in retrospect to isolate them.

Most jewelry, metalsmithing, and sculpture instructors are attracted to copper and copper alloys as a desirable medium for their classes. Having taught jewelry and metalsmithing for a number of years, I had always appreciated the fact that copper seemed to be a most desirable material for teaching purposes, particularly on the beginning level. The modest expense of the working with copper and copper alloys as opposed to other non-ferrous metals encourages students to be more innovative, daring, and creative than they might otherwise be. It promotes a desirable freedom of expression that often disappears as soon as the more expensive non-ferrous metals are introduced. Unfortunately, many of the more innovative pieces fail to survide outside the classroom when forced to compete with the more valued materials.

Competitive exhibitions, especially those emphasizing metalwork, have for the most part rewarded the precious metals of silver and gold, overlooking what I feel is the most creative and imaginative work being done. It was the desire to see an exhibition spotlighting the rewarding expression in the materials of copper and copper derivatives that led to my proposing this exhibition.

Despite the fact that the University of Arizona exists in close proximity to the richest deposit of copper in the free world and is located in the heart of one of the few remaining centers of indigenous metalwork in the country, very little attention has been paid to serious work of artists in this medium and thus the efforts of these artists have gone largely unrewarded. It has been the rare exception that works in a basic material such as copper have been permitted, much less focused upon in a major art exhibition — and certainly not in Arizona or the Southwest.

It seemed "a natural" to present an exhibition focusing on the use of copper as an art medium — to show its range, versatility and desirability as a medium for the production of fine hand-crafted items; to educate the public to its virtues, and to call attention to the state of Arizona as a copper-producing state as well as to the copper industries' contribution to the nation.

The fact that a total of 490 artists from across the nation presented nearly 4,000 slides representint approximately 1,200 works of art for consideration in this exhibition indicates high interest among artists. Needless to say the jurors, Dr. Stephen Prokopoff, Director of the Museum of Contemporary Art, Chicago; Mr. William Harper, Associate Professor of Art and the country's leading exponent of contemporary enamelwork; and Mr. Robert Ebendorf, President of the Society of North American Goldsmiths, had a difficult task in selecting 235 works from the many fine examples submitted. They have selected a show which is a well-rounded representation of the finest in metalwork being produced in this country, by established artists as well as many young, exciting metalsmiths.

We hope you will find the show stimulating, imaginative, creative, outrageous, humorous, challenging, and one which will force you to think of copper in a new light.

Michael F. Croft, Associate Professor of Art
Coordinator of Jewelry & Metalsmithing
Dept. of Art, U. of Arizona

## COPPER, BRASS, & BRONZE COMPETITION

The Copper, Brass, and Bronze Competition and Art Exhibition 1977 was staged at the University of Arizona to draw attention to the variety, versatility, and beauty of copper and its derivatives. We wanted to stimulate and reward artists/craftspersons working in the copper metals. Both the competition and the exhibition were sponsored in part by the National Endowment for the Arts and the Copper Development Association.

Nearly 500 artists/craftspersons submitted 4,000 slides representing approximately 1,200 works. Forty-three states were represented along with Canada and Mexico as the show was open to residents and former residents of the United States of America. California submitted the largest number of entries, with no entries from Utah, South Dakota, Connecticut, Wyoming, Mississippi, Nebraska, and West Virginia, as well as Washington, D.C. The show consists of 236 pieces, with the $5,000 in awards being shared by 13 artists.

The three jurors worked more than two full days, established their own charge as well as dividing and designating the award monies. Also, they granted six honorable mention awards.

The show may be seen at the Museum of Art at the University of Arizona from April 3 to May 15, 1977.

The following is the introduction to the exhibition catalogue by Michael F. Croft along with an article on the trends exhibited by the pieces in the show written by Robert L. Cardinale. Croft and Cardinale planned and directed the exhibition; both are professors of art at the University of Arizona, Tucson, Arizona. The exhibition catalogue (comprised of 64 pages, with 50 photos) may be purchased for $5.00 from the Department of Art at the University of Arizona, Tucson, Ariz., 85721.

In order to elicit response from the participating artists, a questionnaire was designed and sent to all entrants along with the acceptance/rejection notices to college information and opinions specifically regarding competitive juried exhibitions.

The exhibition jurors decided both the distribution and amounts of the awards.

## TRENDS IN CONTEMPORARY METAL WORK

This exhibition emphasizes major directions in which the contemporary metal worker is moving. The first major movement is away from a real functionality of object; a piece of jewelry does not have to be made to be worn comfortably. A container form can exist in its own right without really having to hold a substance. The object is free to stand in its own aesthetic milieu and thus can be contemplated as a pure experience aside from and independent of its real or imagined functional role.

Although often elegantly beautiful, the contemporary metal object is more immediate and less intimidating to the viewer. This is primarily because of the movement away from the use of precious stones and expensive metals. The artist/craftsperson is using and literally revelling in the richness and warmth of materials such as copper and brass. Such so-called base metals do not put off the viewer for he is familiar with these materials and is surrounded by them in his daily life.

In addition to using common as well as technological materials which are familiar to the viewer, the metal worker further communicates to the viewer through the use of humor, whimsy and often tongue-in-cheek statements. A viewer cannot help chuckling with joy over certain pieces as well as sharing the artist's own delight as he reads the title of name of the piece. Not only is the barrier between artist, viewer and piece removed but also a strong tie is established through the communication of humor or insight which the artist has presented and to which the viewer has responded.

The metal artist is making a variety of significant statements. He, of course, is making humorous or whimsical statements, but he is also making very strong and important formal statements. A number of pieces in the current exhibition are pure forms in the classic or traditional sense. Many pieces are a formal or technical tour de force. They are totally refined and elegant in every detail. They embody every principle of art in a quentessential manner.

Incredible complexity and a joy of decoration mark a number of pieces on exhibit. The artists seem to be incognizant of the preciousness of time in today's society as they daringly conceive and execute pieces which take hundreds of hours and promise little return other than their own joy and titillation of the aesthetic perception of the viewer. The variety and versatility with which these many complex pieces are made is almost seductive. One is entranced by the many joints, fasteners, modes of riveting, clasps and patinas or surface coloration used. Such a joy of detail and elaborate complexity bespeaks a delightfully decadent victorianism of the 21st Century rather than the 19th Century.

Finally, then, there are those pieces in the exhibition which are allied with the conceptual directions of many of today's art forms.

They show the obvious and label it to make it even more ridiculously obvious. Such pieces force us to make a new view of the arts and the material and formal statements they make. These pieces are intended to be provocative rather than beautiful. The artist often wishes to anger the viewer rather than to please the viewer. He is making a statement and he demands a strong, even if a negative, response to his statement.

There are many other subtle, beautiful, and exciting elements and directions manifested in this exhibition and you are invited to search for them, find them and share them with these many serious artists represented here as well as with those around the country who are diligently working in varied media to develop significant formal, technical, and expressive statements of and about today's society.

Robert L. Cardinale, Assistant Professor of Art
Dept. of Art, U. of Arizona

## JUROR'S STATEMENT

In a tape-recorded discussion following several days of slide viewing and thousands of visual decisions, the jurors made the following observations presented here in summary form.

The guiding force in our decision-making was the overall look of the work, the visual excellence displayed, along with the style and sense of resolution in the work, with the technical aspects being considered as supportive to the visual statement.

We believe that the works selected for the exhibition are elegant, handsome, and serious pieces. They have a great deal of substance, visually, ideationally and technically. The selections and the exhibition are unique, original and should hold up in years to come.

There is a good variety in the selections, including fantasy as well as an incredible display of technical proficiency showing a strong awareness of the rich heritage of the artist/craftsperson.

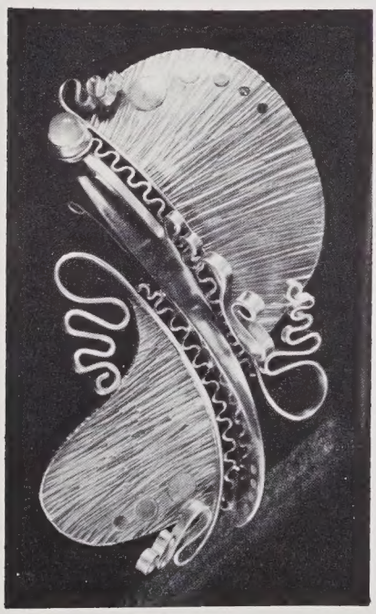
RICHARD HELZER

## AUTOBIOGRAPHY OF RICHARD HELZER

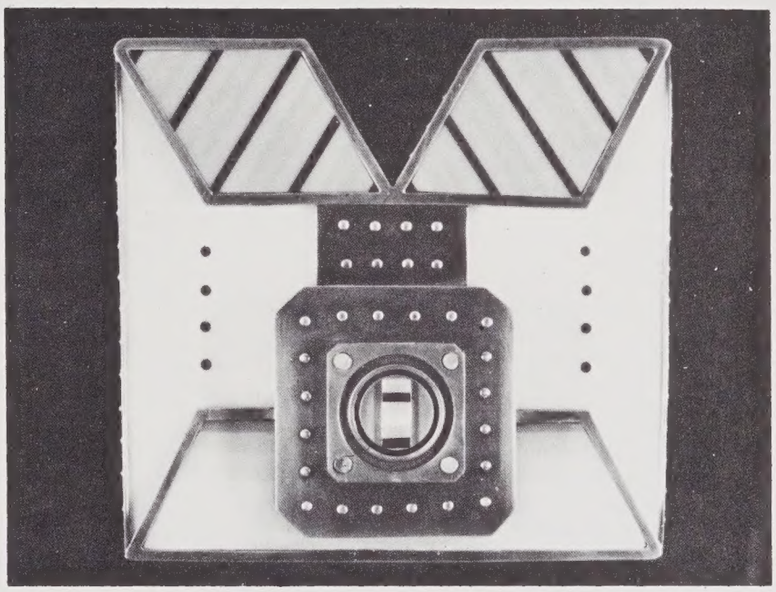
My early years were spent in Nebraska; being born and reared in Minden, a typical mid-western town, population 2,500 (look that up on the map!). I went to public schools that offered art at a very minimal level or sometimes not at all, and attended a small college near my home where I received a very general art education.

In 1965, realizing I wanted a graduate degree at a reputable school, and needing money to do that, I took a job teaching art at a junior high school in Topeka, Kansas, in order to be near the University of Kansas at Lawrence. It was at the university in the fall of 1966 that I was first introduced to metalsmithing and I soon realized that an M.F.A. in jewelry and silversmithing was what I needed. I started out commuting twice a week to the metals shop, and then began teaching a Saturday morning overload class. In 1968, I said goodbye to the public schools and went to Lawrence with a teaching assistantship.

The two years I spent at K.U. in the metals shop were good experience for me. Given the strong basic design program there I was able to formulate my career as a metalsmith. After finishing my M.F.A. in 1969, I was fortunate to be hired on the faculty teaching in the metals and basic design areas.



RICHARD HELZER



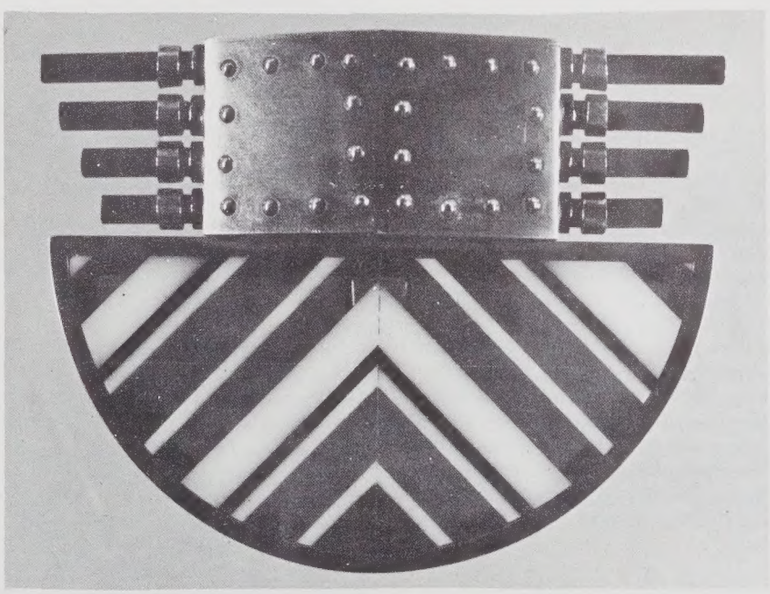
In 1970 I left the plains of Kansas for the mountains of Montana and Montana State U. in Bozeman. There I started a program in metalsmithing from virtually two empty rooms and very little equipment. I look back on those days as missionary work in metalsmithing on the western frontier. Now I feel I have established a reputable program complete with a well-equipped shop in a new art facility.

Montana provides me an environment in which to work and to play. I enjoy being able to ski, backpack, and trout fish, and there is always my ongoing project of home and studio. But living in Montana does bring about the problems of being somewhat isolated and remote. For me it is important to get out and travel and not fall into becoming a regional artist. The contacts I have made from various conferences and workshops have proven invaluable to me and to my students.

My desire to travel (because of living in Nebraska for 21 years) has taken me to Mexico where I was involved in archeological research and to Europe, made possible by a National Endowment Fellowship this past year. I think this last trip did more to solidify my views on my own work than any other force in past years. In meeting with European goldsmiths and seeing lots of work both historical and contemporary, I have been able to solve some of the issues I have been trying to develop.

I am currently in the middle of my seventh year at Montana State, and I am still getting a great amount of satisfaction from teaching. I feel it is necessary to have strong graduate students working with me, for the input they provide is essential in a one-man program. Teaching seems to compliment my professional activity.

RICHARD HELZER



## JOURNAL NOTICES

PLEASE NOTE: Due to the overwhelming response of student photos, only half of the selected photos appear in this issue. The other half will be printed in the June issue of THE JOURNAL.

### NEEDED

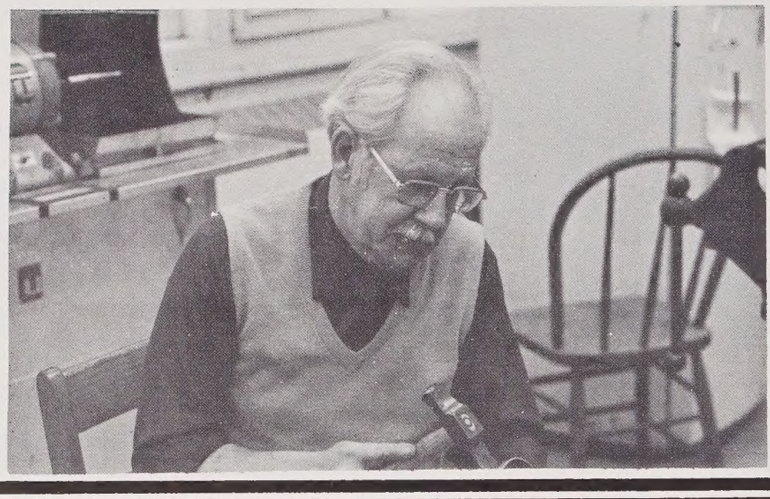
We need black & white photographs of historical metal/jewelry objects for future issues of THE JOURNAL. If you can spare such photographs, please send them to us along with proper information (size, object, materials, date, photographer, etc.).

People needed to write small articles and reviews. If you have a special and/or interesting subject or specialty, please write THE JOURNAL so that other members can share the benefits of your knowledge. We also need information, sources, helpful hints, etc.

### MOVING?

If you will be moving and would like to insure the continued arrive of THE JOURNAL, make sure you contact THE JOURNAL directly, giving new address, zip code, and date of move. Also, contact SNAG office in Boston.

THE JOURNAL assumes no responsibility for any products, sources, exhibits, information, etc., that is printed because of the diverse nature of our sources.



Carlyle Smith

**GOLDDUST IS DEAD**

The idea for GOLDDUST was born at the Bromwood Conference in Seattle in June of 1975. Like a piece of unfinished jewelry, GOLDDUST has been polished and a metamorphosis has occurred — THE JOURNAL.

**PLANNING A CONFERENCE?**

If you are planning on conducting or attending a conference and would like to distribute some complimentary issues of THE JOURNAL, write us. Please provide complete information on the event such as names, dates, location, type of conference, membership status and desired number. If we are notified far in advance, we will be more likely to honor your request, since only a limited number are printed. Help us spread the good word.

**–NOTE–**

During vacation periods, including summer, address THE JOURNAL correspondence to Mark Baldridge at 1600 Otterdale Road, Midlothian, Va., 23113, and NOT to Longwood College.

MEMBERSHIP APPLICATION

If you would like to join SNAG as a student member, send a check for $10 to SNAG, 591 Washington St., Wellesley, Mass., 02181 (include the name of your school and expected date of graduation). If you would like to join SNAG as an associate member, send a check for $25 to SNAG at the above address. If you would like to join SNAG as a pro member, you must send 20 slides of your work in a plastic file folio along with your professional resume. Send everything to Jim Meyer, 11713 S. Briarpatch, Midlothian, Va., 23113. Pro membership is juried and dues range from $50-$100, depending upon yearly salary.

**TRIBUTE TO CARLYLE SMITH**
**by Gary Nemchock**

Carlyle Henry Smith, Professor of Jewelry and Silversmithing at the University of Kansas has elected to retire at the end of the current academic year.

Carlyle has been a pioneer in jewelry and silversmithing and established at K.U. the first B.F.A. and M.F.A. degree programs in jewelry and silversmithing at a state-supported university. His career began at the Rhode Island School of Design and in Providence where he did bench work to get an indepth view of the jewelry and silversmithing industry.

His intense interest in teaching developed out of his special study with Augustus F. Rose, who introduced the first metal program in a public school curriculum, and William Bennett, Silversmith, College of Art, Sheffield, England.

Upon joining the Department of Design faculty in 1946, Carlyle immediately developed the curriculum and content for the B.F.A. and M.F.A. in Jewelry and Silversmithing. His devotion to teaching also extended to Central America where in 1963 he established the first jewelry and silversmithing program at the University of Costa Rica. He continued developing the interest in metals throughout Central America on Fulbright Grants in 1964 and 1965. At this time Carlyle executed the 3-story bronze relief on the Supreme Court Building in San Jose, Costa Rica.

Carlyle established and directed a permanent series of summer workshops in jewelry and silversmithing in New Mexico in cooperation with New Mexico State University at Las Cruces. Through his great interest in the Southwest, Carlyle has elected to retire to his new home and workshop in the Sandia Mountains, overlooking Albuquerque.

In a recent tribute by James Moeser, Dean of the School of Fine Arts, Professor Moeser wrote: "Carlyle Smith has been working with precious metals most of his life. He grew up in Rhode Island where the principal industry is jewelry and where people talk jewelry like Kansans talk wheat. But he has also devoted his life to something more precious than the silver he molds so beautifully, a devotion to students and a commitment to a process called education.

MEMBERS NEWS

Roger Armstrong has recently conducted a workshop at the Renwick Gallery, Smithsonian Institution and participated in the recent exhibit there entitled "Object as Poet", which was supported by grants from them, National Endowment for the Arts and the Copernicus Society of America.

Jamie Bennett had an exhibit of his metalwork at the Memphis Academy of Arts during the month of February.

Bernard Bernstein is currently having a one-man show from Jan. 14-March 20, at the Temple Beth Sholom's Judaica Museum in Roslyn Heights, N.Y. The show is of Bernard Bernstein's (silver) Jewish ceremonial art, and silver jewelry.

Jane Booth, Arline Fisch, Marcia Lewis and Helen Shirk recently participated in an exhibit sponsored by the Craft and Folk Arts Museum, entitled "California Women in Crafts".

Bob Ebendorf gave a workshop/lecture at Southwest Craft Center, San Antonio, Texas on metals and contemporary jewelry design. He also conducted a 2-day metals workshop at Longwood College.

Alma Eikerson has recently received the "Distinguished Professorship" award for her creativity in metal work, outstanding teaching performance, and for establishing one of the country's leading departments in jewelry design and metalsmithing at Indiana University. She has also been honored by her undergraduate school, State University at Emporia Kansas, with the Distinguished Alumni Award in November 1976.

Chuck Evans recently participated in the following shows: "The Blacksmith as Artist and Craftsman, 1776-1976", Southern Ill. U., Carbondale, Ill.; "Ohio Artist and Craftsman Invitational", Massillon Museum, Massillon, Oh.; "Exhibition 280", Huntington Gallery, Huntington, W. Va.; "Marietta College Crafts National", Marietta College, Marietta, Oh.; and was an award winner in the "Salinger National Small Sculpture and Jewelry Exhibition", University of Southern Mississippi.

Arline Fisch gave a workshop at California State U. at Humbolt for the students of David LaPlantz on Feb. 11, 1977.

David LaPlantz participated in a metal and ceramic symposium, together with Bob Ebendorf and Jamie Bennett, at the U. of Texas in Arlington.

Marcia Lewis presented a demonstration on the working qualities of aluminum and Tungsten Inert Gas welding techniques to the students of Cal. State, Long Beach. She will also be teaching jewelry at the first session (June 19-July 8) at Haystack.

Richard Mawdsley recently gave a demonstration and workshop at the University of Iowa. The workshop/demonstration was on "Tubing as a Decorative Element".

George McLean conducted a workshop on "Cost for Production" in a recent seminar, "Focus on Crafts: Marketing" at the U. of Minnesota, St. Paul.

Harold O'Connor recently participated in the "International Jewelry Show" at the International Light Industries and Handicraft Fair in Munich, Germany. Also, Harold's article on the Dunconor Workbench has just recently been published in "Diebeners Goldsmiths and Watchmaker Yearbook 1977", a yearly hardback publication of the jewelry field.

Natalie Paul participated in the Arizona National Competition of Crafts, Goldsmiths Phoenix Art Museum, The National Invitational Women's Art Symposium, Terre Haute, Indiana and in the fall will be showing in the exhibition entitled "Art in America" at Galerie AM Graben in Vienna.

Hiroko and Gene Pijanowski gave workshops and lectures on "Traditional Metalwork of Japan and Contemporary Applications" in March at the University of Iowa.

J. Fred Woell will conduct a workshop, lecture and demonstration on April 11 and 12 at the University of Iowa on "Small Metal Casting". The workshop is free and the public is invited to attend. School of Art and Art History, The University of Iowa, Iowa City, Iowa, 52242. Fred also conducted a one-day workshop with slide lecture at Virginia Commonwealth University during March.

This is to inform you and the readers of "GOLDDUST" that the Metals area of the School of the Museum of Fine Arts, Boston, in conjunction with Tufts University, with whom we are affiliated, has re-evaluated its master's degree program and we have been authorized to actively seek qualified applicants.

Anyone interested in applying should contact me as soon as possible.

Peter Blodgett — Metals Area
S.M.F.A.
230 The Fenway
Boston, Mass., 02115.

**POSITIONS**

For the upcoming school year, 1977-78, we have a position in the Metal Arts Dept. (Gold and Silversmithing) at Humber College of Applied Arts and Technology in Toronto, Canada.

The college offers a six semester, three year program and emphasizes design and practical skills.

For further information about this position, please contact Hero W. Kielman, Coordinator, Metal Arts, 1829 Bickford Dr., Clarkson, Mississauga, Ontario, Canada, L5J 2Ks.

Dates of quarters are: fall—Sept. 19-Dec. 16; winter—Jan. 3-March 17, '78; spring—March 27-June 9, 1978.

Write Richard Helzer, School of Art, Montana State U., Bozeman, Montana, 59715.

FILMS & SLIDES

I would also like to thank David Thompson of Richmond, Virginia for his help with the printing changeover to this new format. Unfortunately, the new format will cost much more money so it is important that all of us continue to support SNAG financially through our dues. The JOURNAL is our main avenue of communication and contact with each other, so we need your dues support to stay in business.

We now plan to include the technical papers, that are to be presented in Seattle, in the JOURNAL so that each member will receive a copy. One technical paper will be in each of the next five issues of the JOURNAL.

I look forward to seeing many of you in Seattle!

Bob Ebendorf
Rt. 1, Box 187X
Highland, N.Y., 12528

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International Guild of Craft Journalists, Authors and Photographers. Recently formed guild of authors, journalists and photographers to find better ways to communicate about crafts. For information contact Michael Scott, International Guild of CJA&P, 1529 E. 19th St., Brooklyn, N.Y. 11230.

The American Crafts Council has instituted a new program sponsoring U.S. lecture tours for foreign crafts people. For information contact Dorothy Hafner, ACC, 44 W. 53rd St., N.Y., N.Y., 10019, USA.

University of Houston, Houston, Texas is now offering a MFA program in Jewelry and Metalsmithing. 60 hour graduate program, two years leading to the Master of Fine Art. Applications and portfolio for admission to the fall 1977 session are due April 1, 1977. Direct inquiries to Richard Stout, Coordinator of Graduate Studies, Dept. of Art, U. of Houston, Houston, Texas, 77004.

Graduate Assistantship. Metals/Jewelry Dept., 1977-78. For information write to Kent State University, Graduate School, c/o Prof. T. Harvey. Deadline for application is April 1977.

INTERNSHIP PROGRAM—The internship program enables the potentially professional craftsman to work alongside a resident craftsman in his studio for a 10-13 week period. This program provides an opportunity to learn through observation and participation without classroom instruction. Peters Valley is able to offer a total of 10 to 15 internships each session, in the areas of blacksmithing, ceramics, jewelry, textiles, and woodworking. Interns are juried for acceptance through recommendations and slides of completed and relevant work. College credit may be arranged through individual educational institutions. An internship fee covers the cost of housing, studio space and limited instruction by the resident craftsman.

Further information and application form are available on request. Peters Valley Craftsmen, Layton, N.J., 07851. (201/948-5200)

POSITION—Teacher of Jewelry, located in the Dominican Republic, Santo Domingo. Applicant must have a good command of Spanish. Description: to train students in the manufacture of amber jewelry; to train the instructor to replace teacher; teach methods of production, training students, proper utilization of materials and tools; recommendation of equipment, preparation of catalogues for designs adpated to the country's culture; and the organization of workshops. Teaching term is one to two years, teaching the physically handicapped. For further information, contact Arturo Perez Gavino, Administrator, Centro de Rehabilitation, Apartado de Correos 1054, Santo Domingo, Rep. Dominican.

**Resident Blacksmith** — residency of 1-3 years, 7 forge studios, all hand tools, some power equipment. Facilities for your own work, teaching, and visiting instructors. Position available July 1977. For information, write Peters Valley Craftsmen, Layton, N.J. 07851.

**Resident in Fine Metals** — residency of 1-3 years. Equipped studio with separate space for residence. Starting July 1977. For information, write Peters Valley Craftsmen, Layton, N.J. 07851.

**Silversmithing Position** — Goldsmith School in Lahti, Finland. Starting in the fall of 1977. (O'Connor)

**Temporary Metalsmithing/Jewelry and Art Education** — Doctorate or MFA degree required. Position also involves student teacher supervision. Two years of public school teaching desired. Write Prof. Dean Carter, Head, Art Dept., College of Arts & Sciences, Virginia Polytechnic Institute, Blacksburg, Va., 24061.

**VISITING ARTIST/TEACHER PROGRAM**

A visiting artist/teacher position is available for each of three quarters (fall, winter or spring) at Montana State U. The metalsmithing area is interested in people who could serve in the metals area for one academic quarter.

Currently, there are 280 undergraduates in art and 15 graduate students.

If interested, send resume, slides and a statement of what you would like to teach. Deadline is May 30.

Enameling—basic methods of firing enamels to metal, with examples. $21.95. Order no. P59. To order, write Scholarly Audio-Visual, Inc., 5 Beekman St., N.Y., N.Y., 10038. Include ordering number and code "FS" for filmstrip. SA-V, I., pays shipping charges when payment accompanies order; otherwise, postage is billed to customer.

No. 335. JEWELRY: THE FINE ART OF ADORNMENT. Lost wax method. 6 filmstrips and 3 cassette tapes and teaching guide. $99.50.

No. 370. JEWELRY: THE FINE ART OF ADORNMENT. Fabrication method. 6 filmstrips and 3 cassette tapes and teaching guide. $99.50 To order, write Warner Educational Productions, P.O. Box 8791, Fountain Valley, Valif., 92708.

**SNAG AUDIO VISUAL LIBRARY**

Slide kits are available on the following people: Glenda Arentzen, Joel Bagnal, Arlene Fisch, Tom Markusen, George McLean, Jim Meyer, Mary Ann Scherr, Heikki Seppa, Olaf Skoogfors, Kurt Matzdorf, Bob Ebendorf, Mary Lee Hu, Mark Baldridge, Albert Paley, Toni Snyder, Bev DeJong, J. Fred Woell, Gerry Evans, Jim Malenda, Helen Shirk, Claudia Kuehnl, Jay Adams, Robert Risher, David Pimental, Drewry Hanes, David Keens, Val Link.

Rental period is two weeks. There is no rental fee for pro members (except return postage). Rental fee for associate and student members varies from $1-$2 per carousel (depending upon the number of slides—carousels contain 20-60 slides) plus return postage. Write C. James Meyer, 11713 S. Briarpatch, Midlothian, Va., 23113. Please give a few weeks advance notice and make checks payable to the Society of North American Goldsmiths.

PRESIDENTS REPORT

Plans for the Seattle conference are finalized and it promises to be an exciting event. I hope that many of you can attend.

The new lay-out of the Goldsmith's JOURNAL was designed by Austin Lowrey of Winston-Salem, N.C. Austin has done work for SNAG before. We thank him for the many new ideas for the JOURNAL's format and the fine job that he performed.

The Society's office has mentioned to me that several members have offered criticism and suggested changes concerning the organization's dues structure.

Please remember that the membership voted in favor of the current dues structure at the annual conference in Cleveland last year. The choice was made from several options offered by the Board.

The subject of dues is an important one which will be on the agenda for our next annual business meeting in Seattle this June. If you do not plan to attend but wish to express an opinion on this matter, please feel free to write the Society's office. The Board will meet in advance of the business meeting and will have a chance to include your views at that time.

The membership must work its will on the matter, realizing that the volunteer time and efforts put into our various projects can only be effective as it is supported by materials, supplies, office help, postage, printing, etc. All of these expenses must be covered somehow if the Society is to be an effective voice for the profession.

Bob Ebendorf

**HELPFUL HINT**

If, while working with a fine steel twist drill (.038 and less) in gold, the drill breaks with a small piece of the twist drill left in the gold piece, the drill will usually break flush with the top surface. To avoid mutilating the object in your attempt to remove the drill, you can allow the object to soak overnight in a concentrated solution of Sparex. The piece of the twist drill will completely dissolve with no injury or affect whatsoever on the gold work. (M. Abramson)

Ronna Silver
Tyler School of Art, MFA
"Manipulative Toy"

Daniella Kerner
Tyler School of Art, MFA
"Form No. 108"

Karin Goodlive
Tyler School of Art, MFA
"Bracelett"

## SOME SAFETY PROCEDURES FOR METALSMITHS

by Bruce Metcalf

With the increasing awareness of occupational safety, a number of safety precautions have come to our attention here at Tyler. Much of this is due to Stan Lechtzin's awareness of industrial and professional publications, which tend to be overlooked by people in our field.

As a general rule of thumb, it is wise to regard all substances as potentially dangerous, and then to avoid breathing dust and vapors, or ingesting any material. General procedures that are good to adopt are: washing hands after handling materials and before eating; using separate work clothes; not eating food and not smoking in workshops, and vacuuming wastes instead of sweeping them. In the interests of ecology, aeresol sprays should be avoided. They also disperse very small particles that do not settle easily, which can be hazardous.

A number of operations should be done under fume hoods, or when wearing respirators with organic vapor cartridges. (Cheap fume hoods can be made from old kitchen stove hoods. Respirators with paper or foam filters work best on particulate matter, and do not filter out vapors.) All solvents used here, such as methylethyl ketone, zylene, methyl alcohol, or benzine, are used under a fume hood, and are best kept off bare skin. Surgical-type disposable gloves can be easily used. Of course, etching with strong acids is best done in closed, ventilated hoods with organic filter cartridges, but in any case the fumes from the etching should not be breathed. Tyler has a water eye-washing station installed near the place solvents are used most. In addition, burnouts for lost-wax casting can be done under a fume hood, because toxic fumes are produced by the burning of waxes and plastics.

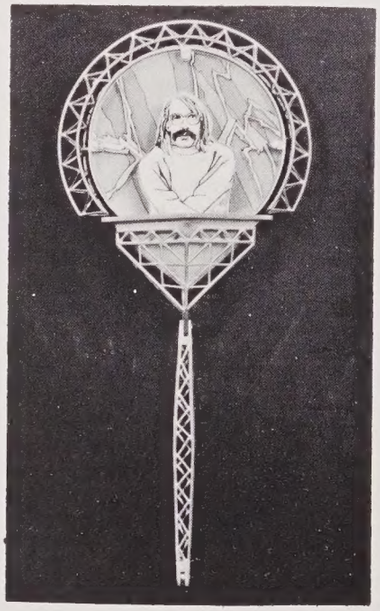
Asbestos fibers are known to cause disease when inhaled. For this reason, asbestos tape and soldering pads are not permitted here. Soft kiln brick, or a number of commercial soldering pads (such as "WRP-X" High Temperature Ceramic Fiber Insulation from Refactory Products Co., Inc., 500 W. Central Rd., Mt. Prospect, Ill., 60056) can substitute for the asbestos pads. So far we have found no effective substitute for asbestos gloves, however. Asbestos gloves should be discarded when they start fraying.

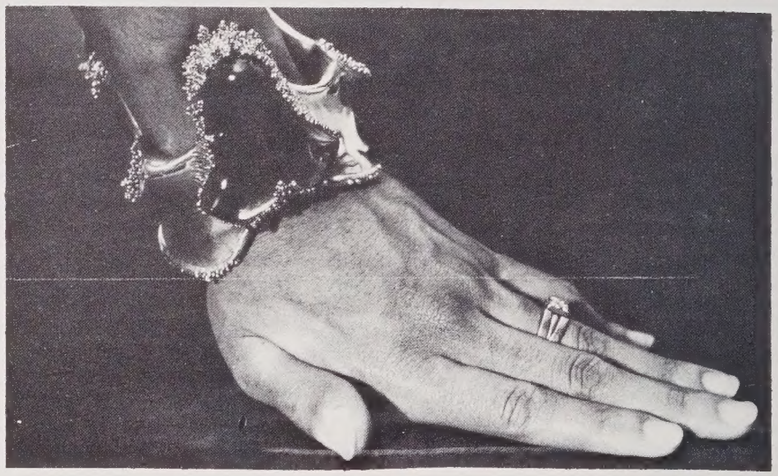
Liver of sulphur releases hydrogen sulfide, which is very toxic. It is best used under a fume hood.

Fumes from welding, soldering, and hot fluxes can also be poisonous, so soldering is best done under a hood. Heating painted, oily, or dirty surfaces release many types of toxic gases. Cadmium based solders, like the very low temperature silver solders, are especially toxic. The zinc plating on galvanized steel is also dangerous when heated over 500-600 F.

Fine silica sand, as in the dust created by sandblasting, can cause silicosis. It is a good idea to use a sandblasting cabinet with a vacum cleaner attached to scavenge dust.

Bruce Metcalf
Tyler School of Art, MFA
"Self portrait pin with Structure and Straight-jacket"



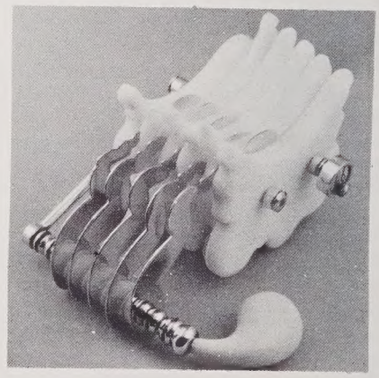


Plastics can release toxic vapors, too. Polyester resins should always be mixed and cast under a hood, or with an organic vapor cartridge respirator. Grinding and filing polyesters is always done with a respirator at Tyler. Epoxies, including epoxy glue, can cause allergies from skin contact, so plastic gloves are used when casting epoxy. Epoxy glues are used with care. PS-30, a two-part adhesive for acrylic plastic, should also be used under a fume hood. Heating plastics beyond the point where they are flexible can release toxic gases, also.

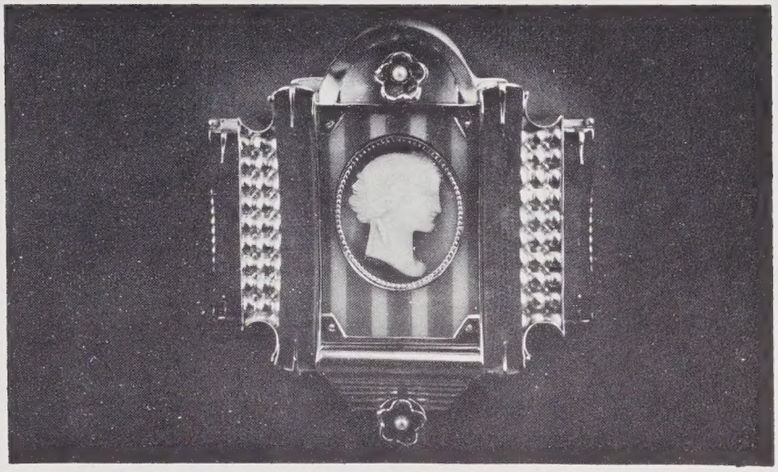
Plating solutions are best regarded as dangerous in every case. Many proprietary solutions contain cyanide. Also, since the combination of cyanide with acids produces a highly lethal gas, cyanide and acids should be stored and used in different areas.

Since this article is brief, it does not supply exhaustive information. Following is a list of further material on this subject:

1. "Health Hazards in the Arts and Crafts", by Dr. Bertram Carnell, is available by writing to 5349 N. Magnolia St., Chicago, Ill., 60640. Cost: $1.75.
2. "The Silent Enemy", from Artist's Equity, 2813 Abemarle St., N.W., Washington, D.C., 20008. Cost is not known.
3. "Health Hazards", from Art Workers News, 32 Union Square E., N.Y., N.Y., 10003. Cost: $2.25.
4. Majorie Rose has written a M.F.A. thesis for Rochester Institute of Technology on toxic materials encountered by metalsmiths and jewelers. I do not know if this is generally available.
5. "Dangerous Properties of Industrial Materials", by N. Irving Sax, published by Van Nostrand Reinhold, provides a comprehensive list of materials, their toxicity, and corrective procedures used by industry.



Linda Threadgill
Tyler School of Art, MFA
Egg slicer



Amy Davison
Tyler School of Art, MFA
"Lady in Stripes"

Hale Anderson
Tyler School of Art, MFA
"Embryonic Space Dance"

NEW MEMBERS

Our congratulations go to John Satterfield of Greenville, N.C. who has been selected as a pro member.

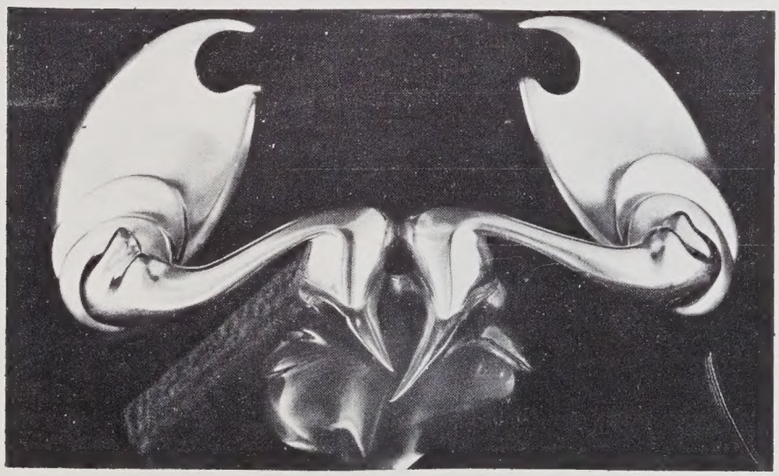
ASSOCIATE MEMBERS: John Rugers, Rt. 3, Box 22E, Bandera, Texas, 78003; Pat Gavin, 5501 N. New Braunfels Ave., San Antonio, Texas, 78209; Joyce Eberts, Temple, Texas; Shirley Gobble, Winston-Salem, N.C.; Lynn Williams, Uniontown, Wa.; Jim Morris, Kerrville, Texas; Neil C. Aird, Kingston, Ontario, Canada; Gladys Blakeman, Daytona Beach, Fla.; Keith Brown, College Park, Ga.; Florence Resnikoff, Oakland, Calif.; Ailien Brobhy, Winsloe, Canada; Al Brown, Roanoke, Va.; Janice Chadwik, Houston, Texas; Jon Havener, Cleveland Heights, Ohio; V. D'Adesky, Ormand Beach, Fla.

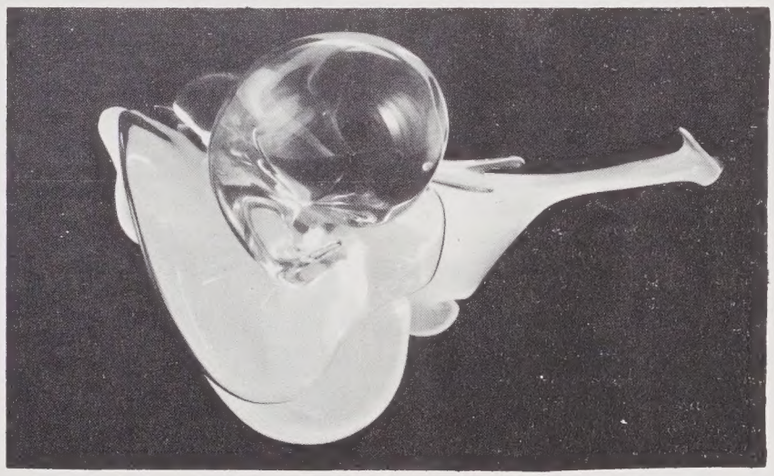
STUDENT MEMBERS: Betsy Douglas, Chagrin Falls, Ohio; Teresa Callahan, St. Louis, Mo.; Barbara Walter, DeKalb, Ill.; Deborah Love, Houston Texas; Elizibeth Swift, Seattle, Wa.; Miki Setzer, Baltimore, Md.; E. Dickens Bishop, Pontia, Mich.; Janet Beck, Richmond Hill, N.Y.; Rick Guido, San Jose, Calif.; Pamela Hassler, Memphis, Tenn.; Mark Humenick, Decatur, Ill; Peter Indorf, New Haven, Conn; Charles Kumnick, Ringoes, N.J.; Julia Porter, Bozeman, Mont.; Donal Pywell, Chadds Ford, Pa.; Lenore Rennels, Green Lane, Pa.; Janet Purdue Call, Bozeman, Mont.; Edith Diamond, Belmont, Mass.; Candy Park, Des Moines, Iowa; James Henderson, Burlington, Vt.; Edwin Givens, Fresno, Calif.; Kathleene Levy, Madison, Wis.; Ann LaRose, Syracuse, N.Y.; Pierrette Paquin, Ontario, Canada; Fredrick J. Marshall, Upper Montclair, N.J.; Lorraine Rosenbaum, Little Neck, N.Y.; Martin Harvey, Radford, Va.; Sean Gilson, St. Louis, Mo.; Barbara Raleigh, New Paltz, N.Y.; Joan Plummer, Vancouver, B.C., Canada; Mary Litsheim, St. Paul, Minn.; David Green, Seattle, Wash.; Betsy Crump, Norman, Okla.

Peter Harrsen
Tyler School of Art, MFA
"Helmet", copper with nickel plate

TYLER SCHOOL OF ART

Meryl Greenberg
"Blade Brooch No. 1"
Tyler School of Art, MFA





## THIRD ANNUAL JEWELRY COMPETITION AWARDS ANNOUNCED

The Museum of the Texas Tech University announced the award winners from the third Annual Jewelry Competition.

First place purchase award by the Texas Tech Department of Art went to Hiroko and Gene Pijanowski of Lafayette, Ind., jewelry entitled "Oppis Pendant", and Helen Shirk of San Diego, Ca. who entered "Hand Mirror".

The Museum purchase award went to William Harper of Tallahassee, Fla. whose work is called "Grey Fettish Pin".

Anne Shepherd of Seattle, Wash. was recipient of a $250 cash award with a piece of untitled jewelry.

Richard Mawdsley, a professor at Ill. State University and a professional jeweler, was the judge for the recent competition.

According to Dr. Francis B. Stephen, Texas Tech art professor, Mawdsley chose the winning jewelry pieces because of innovations by the artist. Many of the exhibits showed a trend toward the European style of a more geometrical mechanical appearance, Stephens said.

In the 1970 contest more gold was used in jewelry-making because gold was less expensive then, Stephens said. In 1973 and 1977, the artist primarily used wood, copper, silver, brass and other less expensive materials.

A style called "Marriage of Metals", which is a mixture of copper, silver and brass, was quite popular in the 1977 contest, according to Professor Stephens.

## HELPFUL HINT

by Hannelore Gabriel

My soldering block is a fire brick found at our Lake Erie beach, nicely sculpted by water and sand with a rough surface and a shallow dent.

In this dent, I remelt all my scrap silver, scrap gold, and gold filings in amounts of one to two ounces. Before melting, I take out all iron parts with a magnet and blow away the lighter of the debris. I heat it with an even flame until it all melts into a blob. To take out the impurities, I use some flux or borax and turn the piece around when it is solid several times and remelt it. The last time I flatten it a bit with a flatiron when it is turning from liquid to solid for easier rolling. After pickling, the piece can be rolled.

With gold I have had excellent results. Sometimes there are slight flaws in the silver pieces. On silver, after rolling, I sometimes get tiny bubbles on the surface when a piece is overheated. I have used this to my advantage for a very interesting surface. A thick crust of tiny bubbles emerges when a piece is heated with a sharp flame to the point that the surface almost melts.

Once I squashed the flatiron too fast and too heavy on my liquid silver. The result was a gorgeous rough surfaced pancake of about one millimeter thickness, with big drops on the edges and a hole just in the right place. This method calls for a leather apron.

## INTRODUCING MARY ANN SCHERR

by Cynthia Wolfson

Introducing artist-craftsman Mary Ann Scherr is a complicated task. As she herself admits, "I carry no image, I am eclectic, each piece I produce stems from a different reference."

And she offers no excuse. Her explanation, "I get bored. It's all over after once or twice being solved . . . and after you solve a problem you don't want to solve it again and again." For emphasis, she adds, "I can't stand the second cufflink."

Mary Ann Scherr attended The Cleveland Institute of Art, studying illustration and graphic design. Among her various and broad employment experiences, she worked as an automotive designer with The Ford Motor Co., and The Burton Browne Advertising Agency in Chicago. After the birth of her first child, Mary Ann continued working as an industrial designer — completing projects from her home studio, as much as her household schedule allowed. She describes this as "a lonely time".

From this period of discontent, Mary Ann recognized the need to establish a link between herself, her art, and people. Her solution — enrolling in a night class at The Akron Art Institute. The only class offered that she had not experienced was metals. She based her decision on that. The result — a lifelong commitment to metals for Mary Ann Scherr.

"Jewelry is a statement of how you feel about yourself. I design according to how I feel about myself and the material."

Six months after participating in the metals class, she received an award from The Art Institute for a piece of jewelry submitted to an exhibition. Mary Ann describes the impact the resolution this critical period had on her. She says, "A new world began. I felt free because I had found my place."

A conversation with Mary Ann reveals that she is, indeed, a professional. And not at the expense of also being a highly sensitive and aware woman. Her dialogue is carefully thought out, each word deliberately considered. She sees herself as having two separate identities: one, artist-craftsman — determined, controlled, and confidently agressive. The other is her role as woman and mother to three children. In this dimension Mary Ann is more vulnerable, tentative about revealing herself, and easily affected by the reactions of others.

Mary Ann integrates both of these attitudes when she accepts the responsibility of producing a commissioned piece of jewelry. "It's important that people are pleased . . but that's not my motivation for creating a piece of jewelry. The problems of color, texture and line are my only limitations. I think I am capable of creating good design in most every form."

She has had ample opportunity to explore the validity of that statement. Mary Ann has successfully designed everything from maternity clothes to furniture to illustrations for children's books . . . among other things. Foremost in her achievements are her investigations into the design possibilities and limitations of metals.

In 1962, Mary Ann was approached by the United States Steel Corp. to research the concept of using stainless steel for crafting jewelry. As one result of her explorations, the concept of sandwich coin was developed. In this endeavor Mary Ann produced 27 pieces of jewelry, comprising a touring exhibition, which traveled across the United States for a period of three years. This research brought recognition to Mary Ann as a pioneer in stainless steel.

She comments on the restrictions this placed on her, "I was doing other things . . . using all kinds of other metals that were exciting to me — and nobody would ask me about it, nobody wanted it."

It was this unrest that brought about another critical period. This time the struggles brought into focus Mary Ann's philosophy of teaching.

"If I could instill only two main concepts to my students they would be: first — to stay curious . . . open and alive. Never stay safe. And secondly, know who you are."

Always curious, changing searching . . . keeping alive the childlike sense of discovery — Mary Ann practices what she teaches.

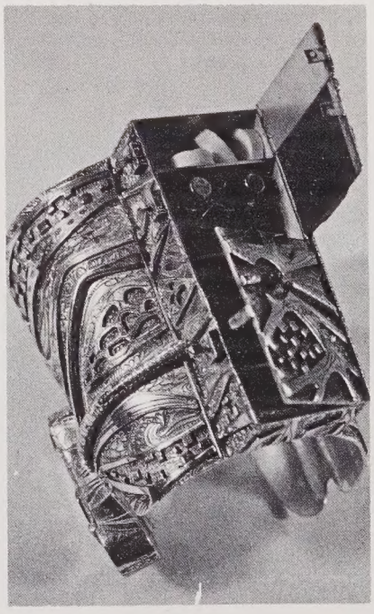
After establishing herself as a full time professor at Kent State University and maintaining her own producing studio, Mary Ann became involved in her most challenging project to date—body monitoring jewelry.

The inspiration for this project came about in a most unlikely way. In 1969, Mary Ann accepted the, at first discouraging, task of designing the costume to be worn in The Miss Universe Pageant by Miss Ohio. An unlikely beginning for such a provocative, innovative concept as Body Monitoring Jewelry. As she investigated the space suit, the theme for the costume, she became engrossed in the idea that all the buttons and devices represented in the space suit were meant to monitor body systems.

She decided that this function could be translated to jewelry. "I knew it would work. I just had to find the kind of minds that would believe in it and help me to develop the idea."

After four years, and the combined efforts of similarly disposed minds, a mechanism was developed. The prototype device Mary Ann had designed was modified to accommodate the mechanism and years of research were culminated.

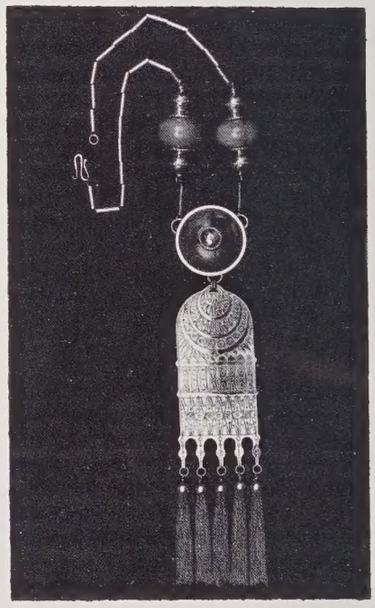
Mary Ann describes the moment of realization: "Dr. Bruce Taylor, (a cardio-vascular researcher in biomedics) came to the studio — we put the mechanism in the piece of jewelry, placed it on the girl who was modeling, and hooked it up. Then, for the first time, we saw the heartbeat translated into a bullseye pattern. It was so great. A magnificent moment!"



Pulse /Heart Monitor
Sterling Silver
Mary Ann Scherr

This was the first time the heartbeat was measured in a predictable system other than a graph. It functions as a portable EKG. Mary Ann feels that as early as 1980, Body Monitoring Jewelry will be mass produced. She compares its potential development to that of the digital watch.

Mary Ann has considered additional projects — a device sensitized to signal the onset of a migraine headache and a series of "Compassionate Jewelry", which will camouflage corrective surgery. One piece already completed is a Tracheotomy Necklace. This piece is now on permanent exhibition in the Medical Science Division of the Smithsonian Institute in Washington, D.C.



Necklace
Sterling Silver
Acid Etch with Niello Inlay and Amber

MARY ANN SCHERR

Evaluating her role in creating an innovation in the function of jewelry, Mary Ann states, "What matters to me is that it was something I saw from a seed to a finished product. I believed in my idea and was able to demonstrate it in the form of a functioning, workable piece."

She provides further personal insight by explaining, "I think I could be fairly content in just designing and in being a perceptual person. The excitement comes from initiating the project."

Sharing her thoughts more Mary Ann offers, "The stubborness of the metal isn't much different than the stubborness of the concept. Trying to get the idea into a form is the struggle."

There is great continuity between Mary Ann Scherr the artist and Mary Ann Scherr the teacher. As a professor of art at Kent State, she admits that although she teaches technique and craftsmanship, she spends more time ". . . trying to make the student really think about design."

Researching libraries, museums, and literature — in addition to keeping a personal journal — are all a part of her course requirements. They are intended to underscore the importance of every student's individual identity.

"Everything has to be settled in your mind before approaching the metal. You have to develop a 'You', and then . . . show who you are."

Mary Ann's students also experience her "closed-eye design" approach to work. She explains, "Picking up a pencil would fracture the thinking. Design is born in the mind. Sometimes the realization comes in a minute — other times, it stews around for months."

After considering the design in this way, it can be translated into a visual blueprint. "Alterations and changes can occur spontaneously, as the materials are used. You have to take advantage of what happens."

In describing one source of inspiration, Mary Ann reveals that she reacts strongly to visual forms. "I rarely translate just a thought or an emotion. Clouds affect me . . . but as forms, to relate to and draw from."

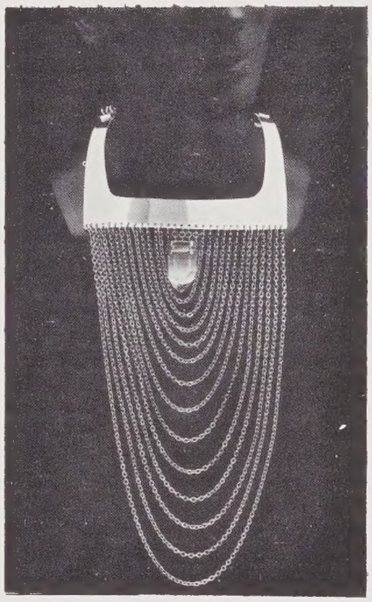
Both the artist and the woman that comprise Mary Ann Scherr find comfort in the community of artists. She thrives on the support and sharing of discoveries and ideas that occurs among fellow artists. This interchange serves to facilitate the extension of the possibilities of metals, and the development of her craft.

Her greatest achievements emerged from her confrontations with dilemmas. This is the result of the fact that she accepted the challenges of the struggles. With every new project Mary Ann affirms her commitment . . . her integrity to her beliefs and to the discipline her craft demands.

And so, an introduction to Mary Ann Scherr. It would be difficult to summarize this individual. There is a quote, this time from Thoreau, which illustrates the energy behind her creativeness, ". . .we cannot see anything until we are possessed with the idea of it — take it into our heads — and then, we can hardly see anything else."

ELEMENTS IN SERIES
Necklace,
Walrus Tusk, Black Coral, Jade,
Ebony, 3 fire Opals, Gold Silver

MARY ANN SCHERR



Stainless Steel
BIB
Quartz Crystal MARY ANN SCHERR

**LONGWOOD WORKSHOP**
by Mary LaPrade

On February 7-8, 1977, Robert Ebendorf came to Longwood College to conduct a two-day jewelry/metals workshop with students, teachers and professional jewelers from various parts of the state. Mr. Ebendorf spoke on cold connections — in particular, the use of rivets; he investigated rivetting from a decorative point of view. In referring to this method of connecting metal, he explained, "I enjoy the actual physicalness of the rivet; they are like diamonds, stones and pearls, and can be just as aesthetic. You can be very honest and let them be part of the design." In addition, Ebendorf emphasized the use of flat sheet acrylic to add color to his work, and engraving and reticulation as methods for surface embellishment to metal.

The workshop which was attended by approximately sixty-five people including representatives from Longwood, Madison, VPI, ODU, and Radford, proved to be a great learning experience for the participants. Ebendorf acted as the moderator of the event and allowed the other teachers, business people and students to ask questions and receive feedback in a variety of areas. Features of the workshop were: a session for students interested in learning how to apply to graduate metals programs, a slide show which focused on four of the professors present—giving people a chance to become familiar with their work, explanations of organizations such as SNAG and ACC by their representatives, and a specialpartyfor SNAG members (Robert Ebendorf, Al Brown, Mark Baldridge, Peter Wreden, Ron Wyancko, Diane Porzel, Lynda Edwards and Mary LaPrade). The workshop was extremely successful because of the combination of persons in attendance: the fusion of academics with the business world allowed students to realize some of the possibilities available in the field of metalsmithing. According to Ebendorf, although his first commitment is in teaching, "metal teachers need to bring about realities", they have to expose the student to alternatives in the job market, but cannot coddle their pupils. "You do want them to be successful, but they have to do it on their own." During the workshop, the participants gained a better understanding of the techniques and work being produced by contemporary artists, and the opportunities currently available in metals.

PUBLICATIONS

*World Crafts Council Bulletin.* A quarterly newsletter, published by the World Crafts Council, an international non-governmental organization. For information, write WCC, 29 W. 53rd St., N.Y., N.Y., 10019, USA.

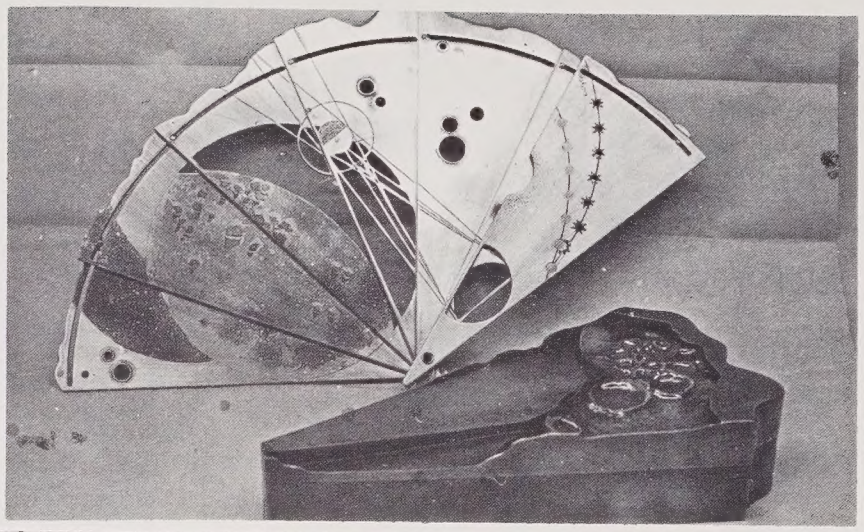
*The Washington International Arts Letter.* A letter service and digest concerning 20th century patronage, support programs, and developments in the arts and government, humanities and education, and books and publications. Covers the practical aspects of grants and other forms of assistance to the arts and cites names and addresses of those who are doing things. Special subscription rate of $16. For more information or subscription, write to Washington International Arts Letter, 1321 4th St., S.E., Washington, D.C., 20024.

## BOOKS

*New Directions in Goldsmithing*
by Harold O'Connor
Dunconor Books
93 pages, 126 photographs
$7.50

The book starts with a layout of a goldsmith's workshop, lists and shows tools which are essential contrary to a lot of gadgets depicted in catalogs. It shows a photo and description of the best workbend I can think of.

The remaining 7 sections feature a new technique or material each: Shell construction, Texture transfer, Impression taking, Plexiglass, Polyethylene, Polyester resin, Miniature lathe.



Lori Van Houten, Syracuse U., BFA

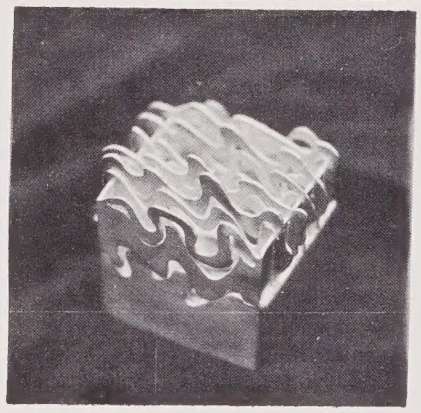
*Procedures and Formulas for Metal Craftsmen*
by Harold O'Connor
Dunconor Books
50 pages, 46 illustrations
$6.95

This little book is loaded with concise how-to descriptions of the most common procedures in jewelry construction including illustrations of catches, hinges, cufflink backs, earring fasteners, and more. There are facts about common metals and formulas for chemicals and alloys and conversion tables. The book is also a little encyclopedia for solutions of the most common problems in jewelry construction.

*The Jeweler's Bench Reference* by Harold O'Connor. A vital reference for the jeweler, includes calculating length and costs, photo etching, plating mokume, etc. Wire-bound, $12.95, postpaid.

(Order from Dunconer Books, Box 2000, Crested Butte, Colo., 81224.

*The Buyer's Guide*. A complete guide to sources, tools manufactured in the U.S. For information, write Manufacturing Jewelers and Silversmiths of America, Inc., 340 Howard Bldg., 155 Westminster St., Providence, R.I., 02903.



Susan Schaaf, Syracuse U., MFA

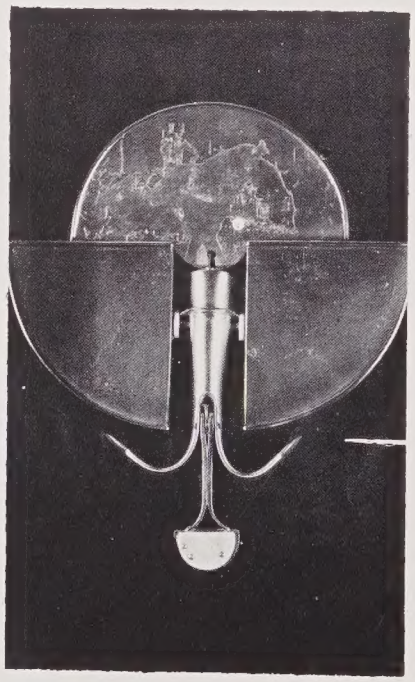
Jeff Perkins
Syracuse University, BFA

Christine Halderson, MFA

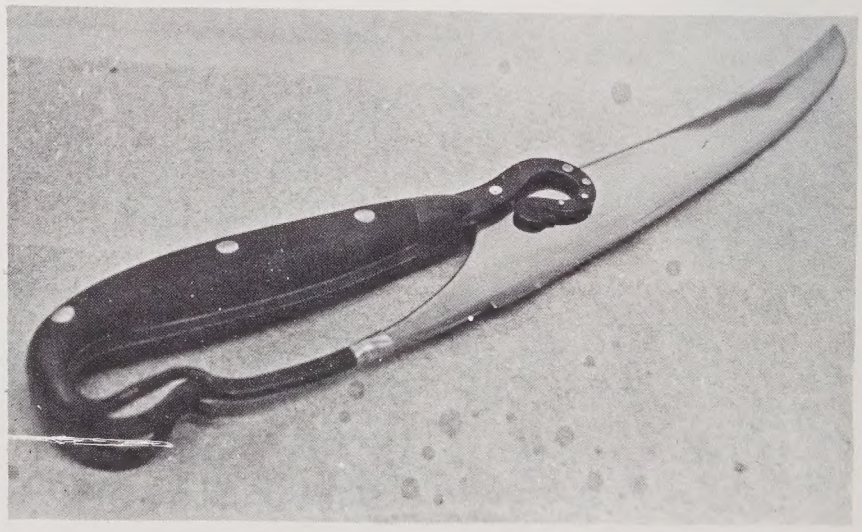
Pamela Proctor, Syracuse U., BFA

SYRACUSE UNIVERSITY

Batow Daniels, Syracuse U., MFA



Loise Debor, Syracuse U., MFA



John Bloom, Syracuse U., BFA

(excerpts from Jewelers' Circular/ Keystone publication, "UPFRONT", February, 1977.)

Other new looks: Pave' set in domed platinum. It dazzled the eye. Round stones set to look like ovals. Thick rope chain studded with almost invisible diamonds to give the chain extra sparkle. And fancy cut diamonds (Tishman & Lipp favored the triangle) and irradiated diamonds (hot with Terrell & Zimmelman and J&H Flyer) grow in use.

WHERE THE GRADS GO: Nearly half of all graduates from the jewelry industry's trade schools go to work within a week after finishing school. Within a month after graduation, two-thirds find jobs in the trade. Only 3% remain unemployed long enough to seek work in unrelated fields.

SAN DIEGO STATE UNIVERSITY

Michi Noda, Cabrillo College
(Santa Cruz., Calif.)
neckpiece, 6"x10"
silver with agate

## THE EGYPTIAN SCENE

Several more jewelry makers have jumped on the Egyptian design bandwagon. Maico was doing well with its Egyptian scene pendants. Alaskan Silver & Ivory added Egyptian scenes to its scrimshaw line. Kamloops exhibited an entire collection of Egyptian antiquities beautifully fashioned into new jewelry. And Oxford Jewelry (it makes the Wedgewood Egyptian line) has added to its Egyptian look.

Our guess: It won't be the hottest item in your store, but a demand for Egyptian-influenced jewelry will exist.

## ANGRY DESIGNERS TO KNOCK OUT KNOCK-OFF

It happened at the show. A savvy JC-K reporter spotted a knock-off of an original designer piece and reported it to the designer. It was the straw that broke the camel's back and on Tuesday night, about 40 of the nation's top jewelry designers met to form the American Jewelry Designers' Guild.

Working together, Guild members intend to find more viable ways to protect their designs.

Commenting on plans to advertise the Guild logo in all consumer ads, Gene Silverman says, "We want consumers to go to jewelry stores and demand our products by name. We are in a fashion industry. We have to protect ourselves."

## 'FLOATING' DIAMONDS AND LOTS OF COLOR

Diamonds still outsell all other gemstones combined, but the cluster look is on its last legs — or so it seemed at the RJA Spring Show.

Now it's either substantial center stones surrounded by diamonds, or diamond pave'. The hottest news, however, seemed to be HOW the diamonds were set.

Several manufacturers dispensed with prongs. Nova Styling, Montclair, Gemveto, LaTriomphe, Richard Rothenberg and others created designs in which diamonds seemed to float. The technique, called "channel setting," exposes nearly the entire diamond. Another technique holds diamonds up in a tube — giving even small stones an important look.

Pearls continued their comeback. Jack Frechtel showed twisted freshwater pearl necklaces. Pacific Gem Cutters reported 8-9 mm size perals especially popular. Jewels by Angelo used freshwater pearls in free-form styles and Frank Mastoloni had pearls in all styles. Ray Mastoloni warned that pearls are going up in price again.

Rubies and sapphires were still tops after diamonds, of course, but emeralds seemed less prevalent. A few exhibitors felt prices for good emerald were just too high. Clyde Duneier substituted "apple green tsavorite" and found good acceptance. Opals, as usual, were hot and, due to price, may even have surpassed emeralds in use as a gemstone. And jade, in green and lavender, remainds as popular as ever.

Don't be afriad to experiment with lesser known stones, however. Pink tourmaline, irradiated blue topaz and sherry-colored topaz, big amethysts, peridot, andalusite cut to look like alexandrite and alexandrite itself were all attracting excited buyers at the show.

## STICKPINS STICK OUT

Either stickpins are going to be the hottest jewelry fashion item of the next six months, or dozens of jewelry manufacturers have been listening to the same misguided muse.

Dozens of exhibitors showed them. Some were "awful" in the opinion of a fashion-conscious JC-K editor. "They were too big and klutzy. They would pull down the fabric."

But most were just right for wear on the long, pointed collars of women's blouses, in ascots and scarves, on lapels of women's suit jackets, and even as men's tie-pins.

A & M Breslow had a separate wall-hanging shadow box just for its stickpins, with still other stickpins sprinkled throughout its display area. Some were tiny, cute, 14k pins around $24, others diamond-studded and more ornate for $150-up.

Designer Henri Dunay, St. Regis Boutique, La Triomphe and others stuck with diamond and gold stickpins in the over $100 range.

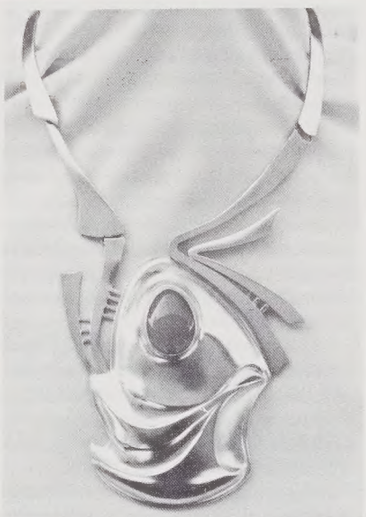
Artcraft touted jade and gold stickpins as its hottest items. Goldcraft used lapis, malachite and tiger's eye.

Every civilization leaves behind golden images of its idols, so what could be more appropriate than a 22k. gold replica of a Coca-Cola bottle. The piece, commissioned by Beecham foods and executed by Algernon Asprey of the Worshipful Company of Goldsmiths, weighs 16 oz. and stands 7½" tall. In an auction, the bottle brought in $11,500, the successful bidder being the chairman of the Coca-Cola Bottling Company in Fla.

A number of investment experts are sticking their necks out and making predictions again about the future price of gold. Most estimates run between $115 and $150 an ounce for 1977, figures that investment specialists seem to agree with. Almost none see a serious drop in the coming year in the price of gold, with some investors predicting the price to to as high as $200 per ounce within a year or two.
Various factors, including a possible Arab entry into the gold market, the Carter Administration's policies toward South Africa, and even whether Russian crops are down and the Soviets are forced to unload gold to buy food, are seen as determinates of the price of gold.

Steuben Glass has long been known for its limited edition crystal. But now it seems to be building a reputation for limited edition crystal jewelry. Since March 1975, the firm has produced 7 designs for the crystal pendants, and number eight, selling for $3,250 each, was sold out before the pendants were completed.

Rebecca Mitchener
Pewter Box
New Mexico State University



## MASTER SETS GRADE COLORED STONES

Describe a diamond as "VVS" clarity and "E" color, then give its proportions, and everyone would have a good idea of what you're talking about.

Now imagine if there was such a system to describe a ruby or an emerald — especially for appraisals. Ex-GIA instructor "Cap" Beasley unveiled just such a grading system at a pre-RJA show seminar.

Beasley suggests jewelers break down colored stone description into three categories: tone (light to dark on a scale of 0-50), hue (color), and intensity (vivid to dull). This would be done by matching stones with sets of numerically graded master stones — or material which simulates their colors.

**THE WORSHIPFUL COMPANY OF GOLDSMITHS' SPECIAL REPORT NO. 30**

*SYNTHETIC GEMS, THE CASE FOR CAUTION*

by M. J. O'Donoghue

(The following article was published by the Worshipful Company of Goldsmiths, Central House, Whitechapel High Street, London, E1, 7PF, England, April 1976)

## INTRODUCTION

A survey of the existing literature has shown that a large number of minerals have been synthesized over the years and that a proportion of these has been used as gem material.

The material considered falls into two classes: one class includes synthetic material whose composition is identical with natural material already established and of gem use; the other includes minerals which have been manufactured for purposes other than for ornament and which in some cases have no natural counterpart.

In the course of the survey, which was commissioned by the Worshipful Company of Goldsmiths, monographs, journals, patents and private communications were consulted.

This report gives a brief outline of some of the findings, the full survey will be published by the Goldsmiths Company in due course.

## SOURCES OF RESEARCH INFORMATION

From the resources outlined above it appears that research into the gem use of synthetic materials has in the past been carried out by gem trade laboratories. Some of these have access to sophisticated equipment such as the electron microscope or microprobe analysis apparatus but in general the staff of the laboratories do not operate this type of equipment themselves nor are they qualified to do so. The result is that most of the reports on these materials emanating from gem trade laboratories concern themselves with phenomena which may just as easily be observed by a jeweller or dealer with a taste for simple testing and with unsophisticated (though quite satisfactory) equipment.

In recent years this type of reporting has been gradually superceded by more complex and detailed reports which emanate from government research departments, museums and the research laboratories of private firms. The mass of detail presented is in most cases too involved for the layman to understand and there is consequently a need for interpretation so that the information regarding materials of gem use can be brought to the notice of those concerned as quickly as possible.

This need for collection and interpretation was the prime finding of the literature survey.

## THE SYNTHESIS OF NATURALLY OCCURRING PRECIOUS STONES

The first class of material to be considered is that comprising the more important precious stones, including diamond, corundum (i.e. ruby and sapphire), emerald, chrysoberyl, opal, spinel, etc. All these stones with the exception of diamond, chrysoberyl and opal have been synthesized since at least the early twentieth century and in many cases even before then.

1) Diamond: The synthesis of diamond as a gem material is comparatively recent and dates from the successful conclusion of research carried out by the General Electric Company of America in 1970. Although very few of these diamonds have so far been made there is no reason to think that they will not at some time appear on the market. So far tests have shown that they fluoresce under short-wave ultra-violet light with a noticeable phosphorescense; a most unusual feature in the case of a natural diamond. In the yellow synthetic stones no absorption lines are seen whereas most natural stones of this colour will display at least the line at 4155A. The synthetic yellow stones do not fluoresce under ultra-violet light whereas natural "canaries" always fluoresce a strong yellow. Blue stones so far seen contain inclusions of flux which are either rod-shaped or flattened. They also fluoresce and phosphoresce under short-wave ultra-violet light which no natural blue stone will do to the same extent. It would appear that the manufacturers can control both the colour and the clarity of their product so that future observations may be more complicated.

2) Ruby: Ruby has been synthesized by the flame-fusion (Verneuil) method since the nineteenth century and information on this process and on the materials produced by it are sufficiently well known but growth by other methods is not so well documented. Both the hydrothermal and flux-melt methods of growth have been used for the manufacture of ruby and stones produced by these means are best identified by their characteristic inclusions as seen under the microscope. Contamination migrating from crucible materials, undissolved particles of flux and crystals produced by preferential crystallization are all common inclusions. Identification by such means as absorption spectra are less satisfactory since in most cases there is no difference between the natural and the synthetic material. However, there is no reason to think that manufacturers, should it be found commercially desirable, could not make crystals quite free from the inclusions mentioned above (or, indeed, simulate those found in the natural stones).

Although ruby has been manufactured by several different processes, this has not been the case with the blue or the other colours of sapphire. This is an indication, not of the scientific difficulty but rather of economic shrewdness, since the value of a corundum variety outside ruby is not anything like so great as ruby. No record was found of the manufacture of the other colours by hydrothermal or flux-melt methods. In passing, however, it is interesting to learn of the manufacture of a red corundum which cannot be called ruby since it contains not chromium but maganese as its colouring element. So far as is known this has not yet appeared as a gem.

3) Emerald: Emerald is the only variety of the beryl minerals that has been synthesized. An attempt has been made to manufacture emerald by the flame-fusion process but the toxic nature of the beryllia powder necessary for the process prevented its adoption on any other than a purely experimental scale. Both hydrothermal and flux-melt apparatus have been used to produce emerald and associated research has continued since the late nineteenth century and is still going on. Briefly, the synthetic emeralds made by these two methods can be recognized best by their inclusions which are typical and not seen in the natural material. Similarly, natural inclusions are not found in the synthetic material. The commonest inclusion is formed of minute liquid droplets which together resemble veils blown and twisted in the wind; although droplet patterns are seen in natural stones the twisting is never found. Additionally, some varieties of synthetic emerald contain crystals of the beryllium silicate, phenacite. Although many reference books on gems mention the Gilson "N" series of synthetic emerald, to which iron was added, this having the effect of raising the constants and of dampening fluorescence, comparatively few of these stones were produced.

Similarly, the reproduction of synthetic emerald by Zerfass was of limited extent; the emerald made by Johann Lechleitner of Austria which consists of a seed of poor quality natural emerald deposited hydrothemally is not often encountered. Early specimens of this production had, at least on release from the factory, a back facet remaining unpolished though naturally there was nothing to prevent its polishing at a later date. This process was after some time made over to the Linde Company (in 1961). At some time the Lechleitner product was marketed by Sturmlechner of Vienna. The main manufacturers today are Carroll F. Chatham of San Francisco and Pierre Gilson of the Pas-de-Calais, France.

From time to time emeralds appear in the laboratories which do not resemble the productions of these two firms. It has often been suggested that individuals are making emerald (as other stones) and that for purposes which must, presumably, be intended to deceive, they are entering them in the gem markets. It may also be said that even if one accepts that the motive of the major manufacturers is to supply the trade with good quality emeralds at a reasonably low price, the knowledge of possible subsequent use for unworthy purposes must surely have been present throughout the process.

In the testing of synthetic emerald, the microscope is without doubt the most important instrument in use. One of the early cheap testing devices, the Chelsea Colour Filter, is now not quite so useful as before since some of the synthetic emeralds, though still passing red quite strongly, do not display quite such a brilliant colour as the earlier materials. Reliance upon SG and RI is not quite safe either, since, apart from the Gilson "N" stones, emeralds of unknown provenance which appear may have constants similar to the natural material.

Some years ago an emerald which owed its colour not to chromium but to vanadium was produced and, while examples are exceedingly hard to come by, it is known that they showed a marked zoning of colour; this may be seen in some Colombian stones. As the absorption spectrum shown by vanadium-bearing minerals is not very distinctive, great care has to be taken, and the inclusions very carefully scrutinized.

The use of ultra-violet light can be recommended in the testing of synthetic emerald, since the synthetic product will transmit the rays below 3000A, the natural stones being opaque beyond that figure.

4) Alexandrite: Until very recently the term "synthetic alexandrite" meant specifically a species of synthetic corundum to which both vanadium and some chromium had been added. Some reference books mention synthetic spinel in this connection, but I have never seen such a stone and one leading manufacturer of synthetic material told me that very few were in fact made. These corundums, of a notable bluish-purple colour, are recognizable by this alone, but the spectroscope, showing a line at 4750A, puts the matter beyond doubt.

Since 1970 a synthetic chrysoberyl has been manufactured by the flux-melt method and placed on the market by Creative Crystals Inc. of Danville, California. These stones, with a good colour-change and with SG and RI similar to the natural material, may be identified by the inclusions peculiar to material manufactured in this way, twisted veils of liquid droplets and splashes of flux resembling the markings made by slapping a paint-brush on to a flat surface. Dust-like particles perhaps parallel to the face of the seed are also seen.

5) Opal: The latest stone to be synthesized is opal which has appeared on the market in both its white and black varieties. The manufacturer is Pierre Gilson. Although a silica gel, solidified and displaying a play of colour, was made by Karl Iler (and

perhaps by others) some years ago, this material was never placed on the market. M. Gilson appears to have solved a problem which Dr. Iler (formerly of DuPont Chemicals, Wilmington, Delaware) may have found beyond him, that of stabilizing the array of minute spheres of silica so that they could be used as a gem. M. Gilson, by some method at present unknown, has succeeded in this. His stones may be tested by observing their behaviour under long-wave ultra-violet light; although they fluoresce quite prominently a number of the natural stones do also; however, many natural stones display a marked phosphorescence and no synthetic opal yet reported will show this. Microscopic examination shows a typical pattern of colour patches, some separated by black borders or by isolated black dots. When immersed in a liquid (water will do) and observed under ultra-violet light and the result photographed the synthetic stones will be seen to have black edges. Otherwise, apart from a preponderance of red in the play of colour displayed, which can hardly be very significant in itself, the new synthetics are very deceptive.

6) Spinel: Spinel, like corundum, has been synthesized for commercial gem purposes for many years by the flame-fusion method. The methods of identification of such stones need not be repeated here. In recent years a red stone, also made by this method, has come on to the market. In former times red spinels were decidedly rare and the boules tended to fragment, thus making them useless for gemstone manufacture. The boules were equimolecular, unlike those of other colours which all had (and have) an excess of alumina, thus giving rise to such effects as anomalous double refraction and higher SG and RI. Some red spinels, of synthetic origin, recently seen on the market, may have been made with different proportions.

Various colours of spinel have been manufactured by the flux-melt method, where octahedra are produced and the colour can be varied by the addition of suitable colouring elements. I have examined stones coloured red, yellow and green and no doubt other colours could be produced should it be desired. These stones betray their origin by the presence of typical inclusions. One stone reported by R. Webster in the 3rd edition of Gems (1975) has an SG of 5.7, a blue colour, and an absorption spectrum consisting of a fine line in the red with other vague lines in the yellow. It fluoresced a strong yellow in ultra-violet light and under x-rays.

7) Miscellaneous Stones: Among stones less commonly encountered are synthetic fluorite, greenockits (scarcely ever used as a gem), lapis lazuli (made by heating suitable materials in a vacuum and then heating them again under pressure in an inert gas with minerals containing sulphur (reported by R. Webster, 1975) periclase, phenacite (both these have been doped to give different colours — I have in my own collection a blue-green phenacite doped with vanadium), scheelite, made by the Verneuil flame-fusion method and more recently made by the pulling technique, tourmaline and zircon, both of which are at present too small to be used as gems.

Asteriated and chatoyant material has also been manufactured in the factory and laboratory. Star corundum, made by the addition of $TiO_2$ and subsequent annealing, is well known and other minerals displaying this effect have been made. The detection of most of these stones is quite simple and can almost be carried out by eye alone, since both the colour and the star are of such high quality. Devices such as engraving lines on the backs of flat cabochons and the use of mirrors are sufficiently well known.

The extensive use of quartz in the electronics industry has meant that considerable quantities, made hydrothemally, have been available for cutting as gems. Different colours are encountered and if the stone is cut from material far from the seed it can be difficult to identify.

SYNTHETIC STONES NOT OCCURRING NATURALLY

Considering materials with no natural counterpart, we find that many of them are in use as simulants of diamond. Some have been on the market for a number of years and are made by the flame-fusion method. These are being replaced by high temperature oxides.

1) Diamond Simulants: Synthetic rutile was one of the first of the diamond simulants to appear on the market. It has obvious disadvantages, since its colour (due to absorption at the violet end of the visible spectrum) puts it out of court as a successful simulant of a fine-coloured diamond and its high dispersion and double refraction make it quite easily distinguishable with little close examination. Strontium titanate which has no natural counterpart but is an analogue of the calcium titanate, perovskite, has a better colour than synthetic rutile but the amount of dispersion is still much greater (2x) than that of diamond. Its refractive index is close to that of diamond and it is also single refractive; however, it is soft and has a SG of 5.1. Synthetic scheelite, which at times may have been offered as a diamond substitute, flouresces strongly under short-wave ultra-violet light. R. Webster reports stones, not in fact colourless, which did not show this effect but which had an SG of 6.16. These could only simulate fancy diamonds and would naturally be regarded with suspicion.

The advent of the new high-temperature oxides has done more to alarm the gem trade than that of any stone since the cultured pearl. Although to the eye of experience the resemblance to diamond is small and the dispersion sadly low, there is no doubt that many people are being deceived by the colourless varieties which seem to proliferate at an alarming rate. The best known of these is YAG, an acronym for Yttrium Aluminium Garnet, although the stones, which contain no silica, are not true garnets. This material goes under a variety of trade names the best known of which is "Diamonair". It may be tested by ascertaining its SG and RI neither of which accord with that for diamond.

A little more difficult are the stones which have been doped with various elements to give different colours such as yttrium (green), terbium (yellow), dysprosium (yellow-green), holmium (golden), erbium (a yellowish-pink), thulium (pale green), ytterbium (pale yellow) and lutecium (pale yellow). Many of the colouring agents give a startingly vivid absorption spectrum of fine lines which are immediately recognizable. More recently a material with the composition Y Al $O_3$ also with possible use as a diamond simulant, has made it appearance. Most of the high-temperature oxides have a hardness of about 8.5. The dispersion is generally about 0.028. The newer stone has an SG of 5.3 and an RI of about 1.93 and is orthorhombic whereas the YAG group are cubic.

Gadolinium-aluminium garnet, yttrium-gallium garnet and gadolinium-gallium garnets are also possible contenders in the gem field; indeed, the last named has already been marketed under the trade name "Galliant". It has an SG of 7.05 and an RI of 2.03 with a dispersion of 0.038. On examination it is quite a good simulant for diamond although the hardness is only about 6.5. Under short-wave ultra-violet light and under x-rays the fluorescent glow (straw and lilac respectively) shows a discrete spectrum. Yttrium-iron garnets (YIG) have, so far, no value as gemstone simulants. A material resembling almandine garnet and emanating from Rhodesia was reported by R. Webster as having an SG near 4.20 and an absorption spectrum of almandine garnet. The stones are rich in iron.

Other synthetic materials include aluminium titanate, barium titanate which has an SG of 5.90 and an RI of 2.40 and calcium titanate (the mineral perovskite) with an SG of 4.05 and an RI of 2.40. KTN which stands for potassium tantalate niobate, has been suggested as a possible diamond simulant with a hardness of over 6, an SC of 6.4 and an RI of 2.27. Lithium niobate under the trade name "Lincbate" had something of a vogue before the advent of YAG; now it is being made in different colours. The SG is 4.64, the hardness 5.5 and the RI 2.21-2.30 with a DR of 0.090; the dispersion is 0.130. The yttrium oxide $Y_2O_3$ may also have a possible gem use since its dispersion is 0.050. The hardness has been reported as 8.5 and the SG and RI 4.84 and 1.92 respectively.

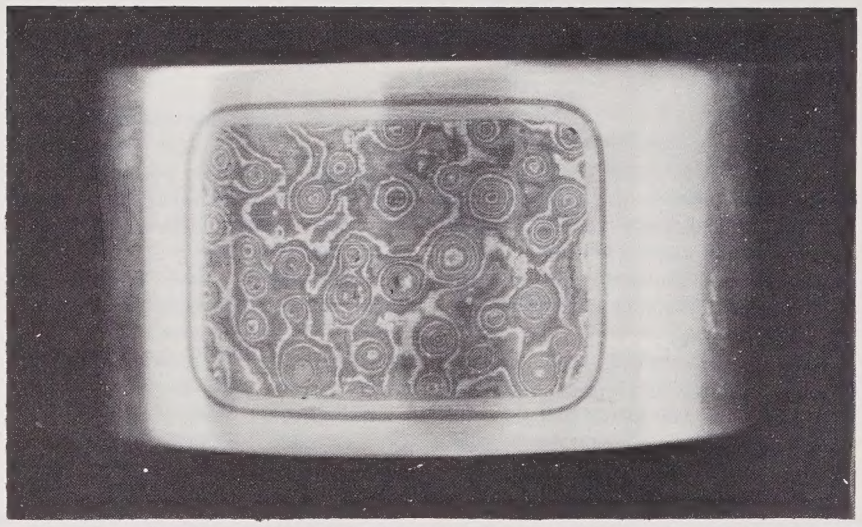
Other material suggested from time to time as possible gems have scarcely been of practical use; some have been water-soluble and others have other disadvantages such as radioactivity. On the whole the oxides and silicates provide the best opportunities for systhesis since fluorides, halides, sulphides and the rest are too soft or insufficiently durable.

2) Composite Stones: Composite stones are still being made and many students, still thinking that the garnet-topped doublet and the diamond doublet are obsolete, have been caught in the comparatively painless ambience of the classroom. These old friends have been joined by a variety of combinations, frequently making use of the high dispersive powers of strontium titanate. This is generally used as the pavillion with a crown of synthetic corundum or spinel. Coloured corundum has also been employed as a composite constituent. The soude emerald is still encountered. "Smaryll" which appeared in 1966, consists of a crown and pavilion of colourless beryl joined with an emerald-coloured duroplastic cement. It can be detected by the nature of the inclusions and by the presence of dyestuff bands in the absorption spectrum. The most recent development has been the use,for crown and pavilion, of natural emerald which will give a chromium spectrum, though that peculiar to the dye will still be seen. Jadeite imitations consisting of hollow cabochons filled with a green dye, as reported in the gemmological literature, are still seen, especially in consignments from the Far East. Opal triplets and doublets are sufficiently well known.

3) Modified Stones: Although the staining of onyx and of opal are still carried on, they are well covered by the existing monograph literature. More alarming is the alteration, by the use of gamma-radiation, of the colour of stones such as beryl and topaz. Examples of a dark blue beryl reached the London gem market about two years ago and a good deal of thought was expended on their nature. It was ultimately decided that the stones had been subjected to some form of radiation since they were found to fade on exposure to daylight. In general any coloured stone which does this should be regarded with suspicison. Heating at about 230 degrees C for a few minutes will suffice in the absence of strong light.

With the increase in the production of synthetic materials for the communications industry we may confidently expect more transparant crystalline examples to be cut as gems. It is notable that the majority of synthetic stones come from the USA where the lapidary hobby is said to reach one in every four people.

It is quite clear that the time is approaching when a manufacturer could flood the market with synthetic stones which are undetectable by the "normal" methods of refractometer and the like. Much information is contained in the literature of electronics, solid-state physics, materials research and similar fields but this is hard to find and is difficult to understand. The sheer bulk of the sources of information make the task of checking well-nigh impossible unless professional skills in literature searching are employed and these need to be sought outside the gem field in almost every case.



Glenice L. Staniford-Matthews
University of Kansas, BFA
"Beacon of the Sea"

Thought should be given to the establishment of a channel through which information can be brought to the gem trade laboratories so that the incidence of new, possibly useful gem materials, does not go unremarked.
(courtesy of Peter Gainsbury,
Director of Research
Worshipful Company of Goldsmiths,
London, England)

## SOME NOTES ON THE PROCESS OF LAMINATION

by Lucille Hautau
(graduate student at Miami University, Oxford, Ohio)
Edited

The process of lamination is one in which several metals of different colors are joined together in layers to form one sheet. ...The Japanese have developed superb control of the process, known variously as Mokume, Yosekufi, moire of "wood grain."...This paper is not intended as a set of instructions, but rather some additional problems, questions and experiences I encountered in the course of my experiments. ...
I hope my experiences will be of help to future students.

METALS

The beauty of mokume is in the contrast between the various layers. Therefore, different colored metals should be chosen. For one layer, I always used silver, preferably fine silver because it is more malleable and possesses a higher melting point than does sterling. Almost any of the usual art metals are suitable, but, keep in mind that all metals used should possess similar properties. For example, brass can cuase all kinds of problems with the laminated piece becoming too brittle. I attribute this to the differences in properties. Unlike copper, silver and bronze which are quenched after heating to anneal them, brass must cool slowly at air temperature after it has been annealed. Fine silver, copper and bronze contrast very nicely and possess the same properties.

The size can be variable, but, smaller sheets are much easier to control: easier to assure complete soldering between sheets, and easier to roll (large sheets eventually curl around the rollers).

SOLDERING

The processes involved in mokume are basic ones — soldering, annealing, and rolling — and all the usual rules apply. By far, the most important single process of mokume is soldering. It is imperative that all layers are completely and evenly joined by solder. Any flaws in the solder join will show up as holes and pits in the final surface. Again, it is helpful to use a small size, taking care as you solder that you can see the solder on all four sides. Do not overheat! Often two torches are used, one above and one below, to aid in even heating. An alternate method would be to solder the layers together in a kiln, thereby assuring even temperature on all metals, and avoiding overheating.

I recommend using borax flux. It covers and adheres better than liquid flux, and also turns clear at approximately 1100 degrees — the correct annealing point. Use a thin coat of flux, and let it dry thoroughly before stacking the layers together. Use medium solder. I experimented with different methods of applying solder; one was using a solid sheet of solder which was rolled to a thin foil.

ROLLING

There is no secret to rolling out the metal. Anneal the mokume frequently — at least once or more per guage you reduce the metal. Again, do not overheat.

The instructions I followed differed as regards rolling. Von Neumann recommends that you "Put the metal through the rolls in a variety of directions." Morton advises, "Put the same end, through the mill each time, and keep the same side up each time" (except for the final rolling, where he recommends alternating directions). I strongly recommend Morton's method: same end, same direction each time. When I alternated directions, the end shape was very irregular, but more importantly, it often developed blisters and cracks between layers due to reversing the concave or convex shape. Rolling the same side, same direction each time resulted in a relatively square shape, and it further avoided the problems of layers separating that occurred when the direction was changed. I also tried, unsuccessfully, to change directions on the final rolling, and again, the layers separated and cracked. The mokume does develop a slight curve from following the same direction, but this is very easy to flatten by hand with no apparent damage.

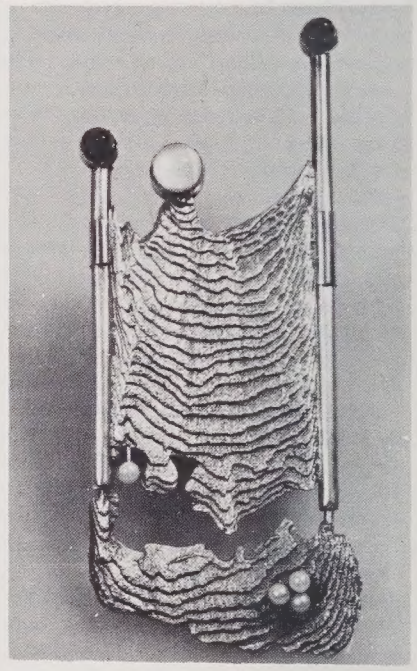
LAYERS

At first, I took the metals to 12 layers (3 soldering and 3 rolling operations). One mokume was taken to 24 layers. By my calculations, in 24 layers each original 18-gauge metal sheet is stretched to approximately 72 times its original thickness. Imagine how thin a layer of solder is by the final rolling! For this reason, I used solid sheets of solder foil on this 24 layer mokume, and it was successful. One possible criticism of solid sheets of solder is that too much solder may be visible on the final surface, thus appearing as separate layers. The most obvious difference between 12 and 24 layers was in the complexity of the patterns. The 24 layer piece was very complex and had an all-over appearance.

FINAL USE OF MOKUME

Experience has shown that mokume is extremely adaptable and, in fact, may be treated almost as any other art metal including soldering — as long as you do not overheat it. The single danger with the finished mokume is the danger of melting out the medium solder between the layers. Eventually, I inlayed the mokume, as in the bracelet pictures, which required several successive solder joins.

So far, I have been concerned with the actual soldering and rolling processes. But, the real challenge, once one has mastered those, is to create different textures through the process of dapping up the design. This is where the Japanese have really displayed variety — from geometric patterns to texture resembling water ripples and wood grain. And, the applied uses of mokume have no limit.



John Olsen Cooper Union, BFA

Barbara Minor Terra Haute
Indiana State University, MFA
"Midwestern Pig Box"

## AUTOBIOGRAPHY OF HAROLD O'CONNOR

The primary desire which drew me toward the field of art and crafts was the necessity of using both the mind and the hand to produce visual objects. Before turning to art and metalwork, my college years had been spent studying psychology, sociology, anthropology, and philosophy.

During my last year at the University of New Mexico, I enrolled in jewelry classes and by the end of the fall semester had dropped all other classes and became thoroughly involved in my metalworking. During the summer of 1965, I worked in a small factory which produces commercial apple peeling machines in order to obtain the funds necessary to further my education in the metal arts.

In the fall, I journeyed to Copenhagen, Denmark, to the National Arts and Crafts School, to learn enameling, design, forging, and fabrication methods.

From Denmark, my travels led me to the National Arts School in Helsinki, Finland, to study reticulation and other methods employed by the Finns to produce their stylistic jewelry.

During my stay in the far north one of my teachers suggested that I go to the Kunst und Werkschule in Pforzheim, Germany, to continue my studies. The next year was long and hard, but well worth the effort when it was completed. During my stay in Germany, I was taught jewelry design, stone cutting, etching, repousse, engraving, and goldsmithing techniques. Further experience was gained by doing free-lance design work for a jewelry firm in Pforzheim. Then back to Helsinki for the summer and more work for a jewelry firm there before returning to my old job in the States.

At the end of a few months, I had enough money saved to head west to set up on my own. On the way from upstate New York to the Rockies, I stopped in at Penland School of Crafts and became a resident craftsman for the winter months. Later I was to return to teach a course in the summer program.

In the late spring, my wife and I headed west to Colorado and ended up in a small mountain village called Crested Butte. We both set up shop there for the next 2½ years.

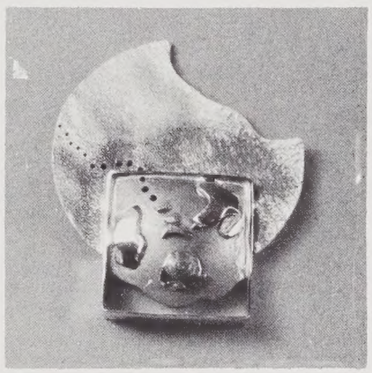
In 1970, we packed things up and left for Mexico to seek new inspiration and also to work on a master's at the Intituto Allende. In 1971, the Alberta College of Art in Calgary, Alberta, Canada, hired me to teach metalwork, crafts, sculpture, human anatomy, and design. Besides teaching, I was responsible for the design and layout of a new metal shop for the new art building and the development of a three-year intensive metals course.

After leaving the college in 1973, I have done much traveling, conducted workshops and given lectures in Canada, Europe, and the United States. Research into efficient and innovative jewelry techniques has occupied a major portion of my time in the last few years.

In 1975, I took my savings and spent them publishing a book on jewelry-making entitled *New Directions in Goldsmithing*. It is the culmination of four years of experiments in various techniques.

The appearance of *Procedures and Formulas for Metal Craftsmen* was the highlight of 1976. I also ran a summer program for advanced jewelry instruction that attracted students from Holland, England, Mexico, and the United States. Part of the year was also spent on the design and development of a new workbench for jewelers. The publishing of *The Jeweler's Bench Reference*, and a continuing of jewelry courses for advanced students are part of my plans for 1977.

My work throughout the years has tended to undergo many changes, both in technique and design. The influences have come from the many teachers, schools, cultural aspects, and my personal reactions to my environment. After returning from a summer session in 1972 at the International Academy of Fine Arts in Salzburg, Austria, my works underwent a great change. From my days teaching human anatomy a whole series of designs evolved into forms ressembling internal body units.



"Pathway to Sargus"
Copper, silver, gold
1" in diameter

HAROLD O'CONNER

Brooch
Silver, copper, gold, ivory
"Emerging Continent"

This was most challenging as it was necessary to solve the problem of constructing rigid metal forms derived from soft organic images. During the last year a series of 'micro-size" metal relief collages of copper, silver, gold, ivory, and stone have been created. The designs being abstracted from dried cow bones and small animal skins. The average size of the works are 1½" in diameter and are then matted, placed in metal frames, and hung on the wall.

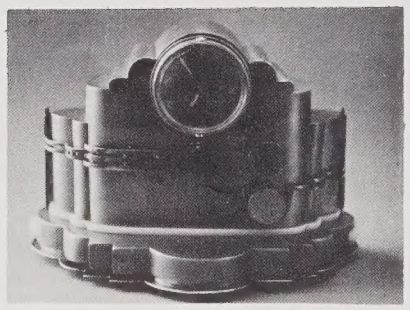
I have been fortunate during the last several years to be invited to represent my country in several world exhibitions held in England, Germany, and Japan. Several jewelry and craft publications in Canada, Denmark, Germany, Australia, and the United States have published my articles on metal processes.

Recently I spent several weeks in Finland visiting schools, jewelry firms, and young jewelers to observe methods used in the training of goldsmiths and industrial methods of jewelry production.

I hope that the next works I do will be different from the ones in the past. That I may continue to learn more techniques and further refine ideas as well as continue to share my knowledge with both colleagues and students.

HAROLD O'CONNER

Brooch
Silver, gold, copper
2"



Julie Keri Porter
Montana State University, MA

## PART III – WORKING ACRYLIC

by Hale Anderson

In many instances when fabricating with acrylic it may be necessary to join parts together mechanically using bolts, rivets, or even by electroforming. Sometimes mechanical methods are not always appropriate or satisfactory. Instead, cementing acrylic together may offer the best results. If executed properly, cemented sections are water tight, provide a uniform, strong bond at the joint, and hopefully, a clear, bubble-free joint.

Cementing or "solventing" acrylic together is common enough. There are certain pit falls when cementing acrylic, that if unknown, lead to poor results and often frustration over what ought to be a rather straight forward process.

Referring to my article in the December issue, before any cementing is done the acrylic parts must be annealed. This is particularly true if they have been stressed in any way, eg. polished, machined. Unannealed acrylic will craze when the solvent or cement is applied and it is the most common, although not most noticed problem when cementing. The most salient and annoying problem with cementing acrylic are air bubbles trapped in the joint or between laminated sections. To the list one ought to add poor joint strength which often occurs due to improper application of the cement or dirty surfaces in the joint. Most of the problems in cementing acrylic can usually be avoided through careful consideration of the following two factors: [1] choice of cement or solvent for the job, [2] method of application.

There are innumerable cements and solvents on the market and the impression seems to be that there isn't much difference between one brand and another. The first distinction one must make to unravel the myriad of acrylic cementing agents is to recognize the difference between solvents and cements; they perform two very different functions.

Solvents work by diluting or softening the acrylic so that when two surfaces are placed together a cohesion sets up creating a bond. Most acrylic solvent cements contain methylene chloride or some variation of it. Within a short time the solvents evaporate leaving a clear, strong joint. There are thickened solvent cements which function in the same manner, the solvent is simply more viscous. These are often confused with true, polymerizable cements; that is, cements that when mixed in proper proportions (resin and catalyst) cure, creating a new plastic. In the case of acrylic cements, a new layer of acrylic is formed in the joint. As in gluing epoxy, the polymerizable cement itself IS the bond and extreme clamping pressure will only drive out much of the cement that is to provide the bond in the joint.

Careful consideration should be given to which kind of vehicle for cementing is needed, solvent cements or the polymerizable cements. In all cases the polymerizable cements provide the strongest, clearest joint but also, because of high viscosity, tend to trap air bubbles if improperly applied.

Solvents seem most appropriate when the surfaces to be joined fit together perfectly without any contortion or bending of the parts, or where strength is not a major factor. Solvents work best with small or restricted surface areas. In other words, laminating several sheets of acrylic with solvent cement, thickened or not, may result in a porous or bubbly join due to evaporation. Should the clamping pressure be relieved prior to complete evaporation, even accidentally for a second or two, the surfaces will become mottled, frosty or completely bubble ridden.

Solvents work primarily either by capillary action or by soaking. One advantage to solvents is that by injection of the solvent with a hypodermic needle or a reasonable facsimile, a uniform, clean joint can be achieved without any residual cement to clean up. The capillary action will draw the solvent along the edge and between the parts. The surfaces to be cemented must fit together exactly or failings will occur somewhere along the joint.

Acrylic parts that are solvent cemented by capillary action can be used or, at least moved soon after cementing. It is wise, though, to allow 24 hours before putting any real stress on the joints.

Soaking parts in solvents requires a longer period of time to dry as more solvent is in the joint through soaking and thus requires more time to evaporate. Close fitting between parts is necessary. One of the surfaces is soaked in a pan of solvent cement until a cushion develops. The soaked part is then placed directly on the opposing piece to create the joint.

The soak method may provide a slightly stronger joint but also requires a lot of solvent which will evaporate rather quickly. Masking of parts to be soaked may be necessary, as well, in order to prevent etching on surfaces not associated with the joint.

Specific techniques for cementing with solvents or with polymerizable cements are detailed in the publication by Rohm and Hass that I have referred to in previous articles.

Very simply, cementing with solvents, particularly by capillary action via a hypodermic needle seems most appropriate where fast results are needed, where joint surfaces can easily be fitted and where clean up of cement residue along the joint would be difficult or impossible. As far as I am concerned, thickened solvent cements are only a source of frustration.

Incidentally, one special solvent-like chemical, cyanoacrylate, works on acrylic extremely fast and actually provides a stronger joint than the methylene chloride solvent cements. Cyanoacrylate is commercially available under such trade names as Krazy-Glue or Super-Glue.

Regardless of the specific agent used for cementing, suffice it to say that, poor joint strength will result unless surfaces to be joined are dry and clean, free of any dirt or grease.

Unless the situation dictates the use of a solvent cement, the best cementing agent is a polymerizable cement. As mentioned earlier, polymerizable cements mixed in the proper ratio of resin to catalyst changes, cures or polymerizes and becomes a new plastic providing the bond in the joint. The best, the only true acrylic polymerizable cement is called PS-30. It contains methyl methacrylate — that is: acrylic. Cementing acrylic together with PS-30 is cementing acrylic with acrylic. PS-30 when cured becomes acrylic and thus creates the clearest, strongest bond between acrylic parts. It is very successful for lamination and produces a clear joint that, when cleaned up, is totally indiscernable from the rest of the acrylic.

PS-30 is analagous to soldering in metal work. The same problems in clean up exist as in soldering but PS-30 also polishes up nicely, as with a good silver solder and blends in with adjacent acrylic parts. PS-30 is also very useful for repair work where nicks or chips can be filled and then sanded down. In shallow repairs the clear PS-30 is not visible against a colored acrylic but if necessary PS-30 can be tinted with liquid dyes if color becomes an important factor.

PS-30 is very viscous when mixed and fills small gaps between parts and renders unpolished surfaces as clear. Once sanded down, a cemented joint with PS-30 is not discernable at all.

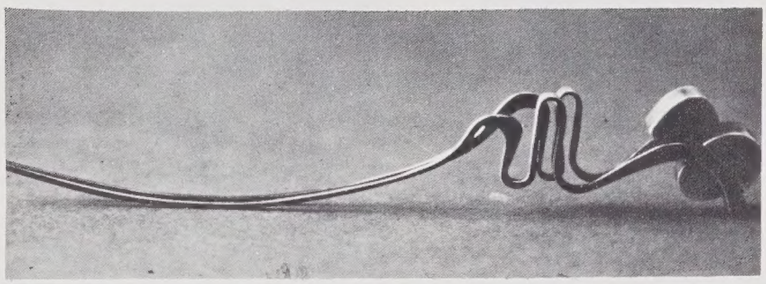
There are some precautions one should take when using PS-30:

1. The two components, A and B should be stored in a refrigerator when not in use.
2. The container used to mix the resin and catalyst should not be lined with any substance, such as in a wax cup, that might mix or get scraped into the solution.
3. The two components should be at room temperature before mixing.
4. The components, when mixed, should be agitated thoroughly for several minutes to insure complete mixing of the parts. The air bubbles will all dissipate by themselves if the PS-30 is left to stand for 10 to 15 minutes.
5. The ratio is 95 grams of resin to 5 grams of catalyst. Any deviation will result in improper curing of the PS-30.
6. PS-30 must be used in a well ventilated area.
7. Joints or areas to receive PS-30 can be dammed off with tape or floral clay. The adhesive side of the tape, even on cellophane tape, will permanently impair the set up of PS-30. Plasticine will impair the set up as well. Floral clay provides a convenient "ad hoc" material for damming and does not in any way impair the polymerization of the PS-30.

The pot life of PS-30 is 25 minutes. Soon after the bubbles have dissipated it should be applied. When laminating, once the bubbles have dissipated in the mixing container, the PS-30 should be liberally poured over the surface of the bottom sheet letting it run off at the edges. The next section can be set at the edge and then carefully lowered down into the PS-30. Any errant bubbles can be forced to the edge by applying pressure with a finger on the laminate section forcing the bubble to travel toward the edge.

To avoid air bubbles, once the bubbles have all dissipated, no further

Janet Purdue Call
Montana State University, MA



agitation or stirring should occur. If the PS-30 is to be injected through a syringe (it won't go through the needle — take it off) pour the freshly mixed PS-30 directly into the syringe and let the bubbles dissipate in the syringe.

To avoid air bubbles when using solvent cement, parts must be fitted exactly, some pressure exerted on the joint, and it must not be moved at all until complete evaporation has occurred.

For PS-30 usually 24 hours is required before full strength is achieved. In cases where small amounts are used, longer periods are needed for complete curing. Curing time increases with temperature. If room temperature is not sufficient the work can be heated at 175 degrees Farenheit for several hours. The work could be annealed, following proper time tables, and the PS-30 would thus be thoroughly cured in that fashion.

In all cases, whether using solvent cements or PS-30, certain safety precautions ought to be followed. Most of the cements are toxic, can cause dizzyness, drowsiness or nausea. A very well ventilated area is a must for any occasion where solvents are used. Contact with the skin can cause dermatitis. It is advisable to wear rubber gloves while working with any of the cementing agents. Goggles, of course, should be used and water ought to be readily available in case any solvent splashes the eyes. A respirator with an organic vapor filter is a great help. Respirators for particulate matter aren't really of any use in this situation. Finally, all cements should be kept away from flames; they are extremely volatile and this fact should be kept well in mind, particularly when cementing is done in a metals studio where torches are prevalent.

One of the best sources for PS-30 and solvent cements as well is Cadillac Plastics. For $1.00 they will send you their catalog from their mail order center:

Cadillac Plastics
Buyers Guide
Mail Order Center
P.O. Box 03000
Detroit, Mich. 48203

Dear Bob Ebendorf:

Your organization has made some great strides since your meeting in Washington, D.C. at the Renwick Gallery. I was in hopes that it would, for I saw in your membership a great potential. Your newsletter GOLDDUST and your office in Mass. have both been added since the Washington meeting. Congratulations! It is good to see more craft organizations becoming professional in the running of their business and services to their members.

Your Seattle Conference /Annual Meeting sounds exciting. Know it will be a successful one. Wish I could be there.

May we be on your mailing list to exchange newsletters? We will mail you and your Wellesley office a copy of our Highland Highlights in exchange for a copy of GOLDDUST on a regular basis. Two recent issues of our Highland Highlights are enclosed.

Hope you will stop in to see us the next time you come to N.C. May the year 1977 exceed your expectations in success and happiness.
Robert W. Gray, Director
Southern Highland Handicraft Guild
Ashville, N.C.

REPORT FROM MEMPHIS:

Jamie Bennett had a show of his metalwork at the Memphis Academy of Arts gallery along with photographer Richard Reep, from Feb. 4-27.

Claus Bury, a German goldsmith, will give a workshop for the students here on concepts in jewelry. There will be an open lecture at 7:30 p.m., Fri., April 22, with his work on display. Contact Richard Prillaman or Jamie Bennett at the Academy for more information.

Also, polyproplyene plastics makes good non-maring and long-wearing chasing tools and hammer heads. Check local suppliers or Polytec Plastics on Cumberland in Memphis, Tenn. 38112.
Allen Brooks
Ann Jenkins
Memphis Academy of Arts
Overton Park
Memphis, Tenn., 38112

Dear Editor:

Received your December 15 issue of GOLDDUST today. Comment on Report of NEA Temple Tyler Electroforming Workshop: I eagerly read the four columns about the electroforming workshop hoping to learn something of value. I learned what they had for breakfast, what brand booze they drank, how beneficial the workshop was to them, what a terrific place Tyler is, etc., etc. On page 10, middle of second column . . ." It was demonstrated during the workshop that a less expensive, yet equally effective copper electroforming bath could be assembled within the budgets". . .etc. Why not publish this information????
Edward Higgins
Erie, Pa.

Dear Editor:

I am a member of SNAG and have always received the GOLDDUST Newsletter about a month late. For instance, today (Jan. 12) I received the Dec. 15 issue. Therefore, I am informed too late of the exhibits and to respond to questions.

I'd appreciate your prompt attention to this inconvenience.
Dennis deJonghe

EDITOR'S NOTE: We are currently looking into the possibility of obtaining a second class postal permit. Second class mail is generally quicker.

Pro-members voted on whether to mail the JOURNAL via first class mail instead of bulk-rate (first class is thirteen times more expensive), but the motion was defeated.

Dear Editor:

The ever deepening quest for more vigorous guidance for those hundreds of metalsmithing students who are pondering over the imminent out-of-school-life after graduation is prompting several "heavy" demands on education: is the time ripe to examine our posture in the light of these issues?

* Educational shift of emphasis towards viably rich, productive and contributory lives in society — other than teaching.
* Small business approach.
* Conscious separation-or-integration in industrial design oriented functional approach to metalsmithing, towards or away from expression, as in all art. Presently it is a confusing mixture where expression suffers under the label of limping function.
* Retrenchment of the metalsmithing in increasingly confusing array of people working as metalsmiths, but using other material. We should take a stand to sanction certain classifications of encroaching craftspeople. Clear the air as to plastics, wood, macrame, twigs, enamels, and stick jewelers, as there is, or should be, a difference between jeweler and metalsmith and watchmaker. Our image should be cleared.
* Continuous cultural education of the public. Exhibitions, demonstrations, competitions, emphasis, in individualism and its values.

Heikki Seppa

**COMMENTS**

I found the article by Max Frohlich both stimulating and disturbing. Having been born and raised in Germany, I am familiar with the system of training of goldsmiths there. Hanau, my home town, was for years a leading center of the craft, the refining and the jewelry industry. Hanau still has a leading Zeichenackademie, academy for goldsmithing.

Master Frohlich was especially concerned with three things: [1] "People pretending to know how to work practically in all classical crafts", [2] the idea that "only creative work is worthy of man", [3] the belief that "it is nearly impossible to find executing help".

Some of the observations made by Master Frohlich are quite true, if unflattering. He saw us in his eyes, as a Swiss. The problem lies in the differences of educational systems. He comes from a highly competitive system which eliminates many students, leading to an elitist class structure. Americans are products of the Jacksonian system of education, an attempt to educate as many as well as possible. We have a mass oriented (sometimes watered down) approach, with all its benefits and drawbacks.

The goldsmith of Europe is given exact and comprehensive training. Americans try to educate rather than train. We intend to round a student in all areas of intellectual and aesthetic endeavor, hence the general education requirements including introductions to art, music, philosophy, drama and even foreign languages. It would be hoped that our students would continue the momentum inspired at school in ever-ongoing self education, growth and development. We teach how to learn.

Master Frohlich stated his education was mainly a strict training, an acquiring of skills and disciplines which yields satisfaction and pride, yet leaves out any access to personal expression or invention. We Americans have a great need in our egos to strive, compete and be involved in a wider base of life. This often at the expense of skill, even knowledge.

David Kuhn
Georgetown Day High School
enamel rattle

I, too, am unwilling to touch the question of what art is. I do not care about labels. I can see some jewelry as emblems of status, ornamentation or manifestations of bad taste. Other pieces are desperate attempts to cover lack of skill with pretense of art. There are also those magnificant pieces of goldsmithing which carry profound insight into the verities of our time and command sensitive and delightful skills in design (as well as craftsmanship). These are uniquely potent symbols every bit as powerful as any image wrought in bronze, chromed steel, paint or plastic.

The old world order is being rolled up and a new one spread in its stead. The fundamentals of skill, dedication and discipline are not obsolete. They are needed and present. No goldsmith anywhere would put down excellence of craftsmanship, superior skill and dedication to fine detail. Only the mode of passing them on is changing, as are emphasis and intent. We must not be trapped in an inflexible position seeing as past when Cellini was allowed to enslave his apprentices as those good old days.

It is true that many envy the quality of European goldsmiths' work. Yet, rare are those who look to them for leadership in design, innovation of techniques or new media. A glance at the sheer volume of shows, exhibitions, competitions, fairs, publications and films in America and in Europe will show where the action is. After years of keeping up with the work of German, English and Swiss goldsmiths, one conclusion has emerged. Since the European goldsmith has to make his living by his trade, he must please the customer. This often brings him into the sphere of the factory-made, commercially designed object. Designs are often contrived, slick, lacking in vitality and pertinence. I find those wonderfully crafted pieces to be safe and noncommittal. Even so, there are those goldsmiths who are true artist-craftsmen, unexcelled in form and skill.

Master Frohlich was astounded that some goldsmiths among us claim competence in several crafts—ceramics, weaving, woodworking, sculpture. I, myself, claim that. So did Leonardo, Chellini, Picasso and many more whom I admire and learn from. I am admittedly not the master of any of these skills as is Master Frohlich at his. But, I am not restricted. I can draw on any media if my idea requires it. Do not assume that one system (training) or the other (education) is better or preferable. It is a matter of heritage and, to some, a matter of choice. Long live the magnanimity which allows the myriad differences to make culture rich. Long live the unity we share in the metals, the tools, the fundamentals and the expert skills which make these differences manifest. We must try to comprehend what is good as well as what is bad or merely strange. More of us should revolt when seeing a prize given to a piece which is not cleanly and well executed. More of us can learn to distinguish the pretentious from the artistic.

What we have in American goldsmithing is also valuable. Mixed with much chaff are fine pieces and very good art. How glad we are Master Frohlich saw some of our goldsmiths "trained fully and expert in technique." Yet, often we lament the absurdity of our "over 100 students per week" and how much we wish the public would understand, appreciate and buy our craft and art as they do in his country.

Klaus H. Kallenberger
Associate Professor of Art
Middle Tennessee State University

Dear Editor:

Bruce Metcalf solicits discussion on his article. In reply, it is in most instances quite obvious while viewing students' work to determine who was the instructor. As a youngster, I took an intensive course in art. What was apparent then exists today. If one studied painting with deKooning, many little deKoonings were produced. If one studied sculpture with David Smith, many little David Smiths were produced.

Most teachers in creative fields are not objective people. This need not be taken as a pejorative statement. It very likely cannot be avoided. This can be likened perhaps to the advanced scientist who becomes totally and intensely involved in a specialized area of his field and thereby departs from basics necessary for the newcomer.

My suggestion for the student is to make contact with as many instructors as possible. There is a little something different to gain from each of them.

As in the world of art, it is a mistake for a student lacking years of experience to make a conscious effort to arrive at a personal style. Such a style becomes too glaringly false. With long experience and personal growth, the matter of style and a personal idiom is arrived at with no conscious effort. Of course, there is no guarantee.

In our December, 1976 newsletter, one of our members writes of having "completed a two-week diamond setting course at the Gemological Institute of America in Los Angeles". Upon reading the above, I was greatly irritated and bothered by this statement. Being totally familiar with all aspects of diamond setting, I felt the statement was an affront and an insult to those in the diamond setting profession. I decided to call the Institute in New York City.

Mr. King told me the following: About all they attempted to do in a two-week period is to familiarize the student with a few basics of diamond setting and thereby discover who had a bent or aptitude for the long and arduous study of the profession.

Obviously the field of diamond setting is of interest to some of our goldsmiths and it is rather apparent to me that many of our capable goldsmiths are very unfamiliar with this field. Unfortunately, sources for competent information are extremely limited and without hesitancy I state there is just no such thing as a short course in diamond setting.

At this point I must offer some explanation of my knowledge with this subject. My father was a highly skilled diamond setter who did work for such concerns as Tiffany's and Cartier's of New York City. Starting in my late teens I received instruction from him in diamond setting and jewelry fabrication, went on to study the fine arts for five and a half years, conducted my own jewelry shop for three decades, and so forth.

Now to pick up again on a few facts in relation to diamond setting: It takes several months to just learn how to grind into shape and sharpen the thirty to fifty different engraving tools required. Diamonds are set in tubes or bezels and in prongs. There is also the gypsy type of setting, where the metal surrounding the diamond is kept flush and smooth, which necessitates hammering of the metal to hold the stone. The most difficult of all settings is that where beads are raised and a tread is cut. Finally, there is the pave, or cluster type of setting.

It is normally required that an apprentice work daily with steel stones for about two years before he would be given real diamonds of about 3 point size. It would be about four years before one would be setting diamonds of no more than ¼ or ½ carat size.

The major part of my own work is private commissions, requiring me to design and fabricate gold jewelry pieces that take a good number of diamonds, some of which may run up to four carats in size. I complete a work in every phase up to that of the professional diamond setter.

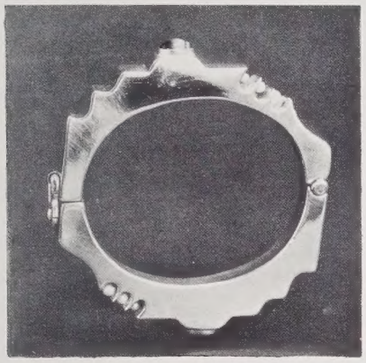
I am now brought to repeating for the reader a few pertinent statements made by Max Frohlich, of Switzerland, in the same December issue. He said too many of us "become victims of a sort of odious vanity" and "do we seriously believe that we can become a genius in an area after taking one course?". Remember, a physician does not try to be the opthomologist also.

Unless it's one or two small diamonds in a bezel, leave the diamond setting to the specialist, especially if we claim to be people who make no compromises with quality.

I also agree with Max Frohlich in his inference that many of the university students involved in jewelry are ensconced somewhat naively and with a degree of pretense and conceit in a sheltered atmosphere. "Practical experience outside of a school environment is important", he said. As a result, in all modesty I would like to make this proposal, which could be of value to some amongst our membership. If one or two of you are in the New York City area, I would be glad to escort you to see "in the trade" as Max calls it - - how a diamond setter works, what a polisher and plating shop looks like, a commercial jewelry casting shop that may cast 500 units in a day, a craftsman who may do 100 complicated solderings in a day, a commercial gem or diamond house, etc. It might be a worthwhile experience.

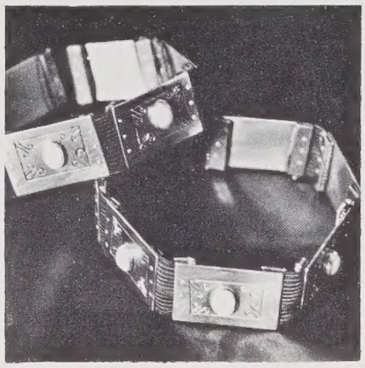
Maurice Abramson
938 Kennedy Blvd.
Bayonne, N.J., 07002

Phil Johnson
Bradley University
"Bracelet"



BRADLEY UNIVERSITY

Francis Byrne
Bradley University
"Leg Bands"



Debbie Stein
Bradley University

Dear Editor:

I am a foreign sculptor and occasional teacher, visting the USA and the other day came across some copies of "GOLDDUST". I found the letters regarding "Aesthetic Question" in issues 9 and 10 very interesting, and feel that in view of scurrilous responses which Mr. O' Connor got from Mr. Seppa, I must write in support of Mr. O'Connor's notions.

Most people who want to lead creative lives do so. Yes, but Mr. O'Connor is not talking about that, is he. He is putting forward some personal ideas as to what goes into making a good "craftsman-artist". Any good, hard-working master craftsman will tell you that Mr. O'Connor gives it to us straight if not in total. One only has to delve into the biographies of the great artist-craftsman (one surely could include painters, sculptors, writers, musicians, under this heading as well as silver and goldsmiths, furniture makers, potters, weavers, etc.) and one will find that Mr. O'Connor tells us nothing even slightly new and that in almost every case the formula is basically the same and has been in operation for a goodly number of years. It requires commitment to become a master craftsman and relatively few people achieve it — to become artist-craftsman requires courage, determination, and faith in one's self, one's work, and one's ideas — one does not necessarily gain society's approval, even post-humously — quite often, in fact, one is likely to be opposed, criticised, and even scorned. . .

. . .I find Mr. Seppa difficult to comprehend when he says, "what you have given us is drivel, pure and simple". The examples of his work that I have seen do not suggest to me that he acquires his skills on a two-week vacation course — and the facts: a talent and habit of making things as a child, 4 yrs. at the Goldsmith School in Helsinki, 1 yr. with George Jensen, and then "since I wanted to learn more", back to school in Michigan. Working and teaching, learning and exploring year after year for around 30 years.

There is no doubt that in some cases a teacher or a school can be identified in a student's work as all teachers influence their students in some ways. Teaching is an invitation to copy, to emulate. The question which arises from this is how does one avoid the worst consequences of this situation? Is it important to even try? Are there teachers now, conscious of this situation who are trying to persuade students to take courage to develop their own ideas and work, while learning and mastering a craft. If so, what are they doing and how much success are they having—and, how much courage and imagination does it take for them to be able to do it?

Just one more point, let us always remember that "freely creative minds" are a lot rarer than one might believe and when they occur, often, particularly in institutions, cause friction and annoyance to the point of being a serious nuisance. In fact, research has shown that generally teachers do not support the "freely creative mind".

Mr. Tom Morrell,
Harrogate, Yorkshire, England

Dear Editor:

Although this article pertains to all of the arts as well as metalsmithing, I thought that GOLDDUST readers might be interested in it:

Faced with the scarcity of university teaching jobs for graduates in metalsmithing as well as with the high cost of setting up a production studio of one's own, I decided to spend some time investigating artists' cooperatives. It seemed to me that a successful cooperative would help to cut studio and gallery costs for an artist, as well as provide creative stimulation through close contact with other artists. I visited both cooperative galleries and cooperative studio areas. I found that there is a high failure rate among artists' cooperatives, due mainly to high turnover in membership and/or inadequate financial backing. However, with a sound economic base and a core of dedicated members, a cooperative can help an artist to establish himself.

The cooperative I was most interested with was Mineral Point Studios, Ltd., in the small town of Mineral Point in southwestern Wisconsin. Mineral Point Studios was founded in 1973 by Bud Wall, an assistant professor of art from the University of Wisconsin at Platteville, to provide live-in studio space for artists just out of school. The Studios are located in an old foundry built during Mineral Point's lead-mining days in the 1800's. Although the building needed extensive renovation to make it habitable and to get the foundry back in operation, Bud Wall purchased it and began necessary repairs.

The Studios now has a working foundry for bronze casting, plus year-round studios for sculpture, painting, and metalsmithing, and summer studios for glass blowing and ceramics. Rooms for artists and a communal kitchen-living room area are built around the studio space. Residents pay nominal rent for studio and living space, as well as for electricity or gas for the foundry and kilns. A sales gallery has also been established in the building.

The idea behind the Mineral Point Studios is to provide young artists with inexpensive studio and apartment space, and with a means to begin marketing their work if they wish to. Of course, the residents have the advantage of working with a group of people who are deeply involved in the arts.

The advantages of such a cooperative are apparent to a metalsmith who cannot yet afford expensive shop equipment as well as high studio and living space rents. If any SNAG members have information about gallery or studio cooperatives, I hope that they will pass it on to other GOLDDUST readers.

UW-Madison Shop News: Both Stanley Lechtzin and Hiroko and Gene Pijanowski gave workshops at UW-Madison during March. Lechtzin's workshop on March 7 & 8 dealt with techniques for working with plastics. The Pijanowski's workshop on March 24 was concerned with tool making and with chisel-work.

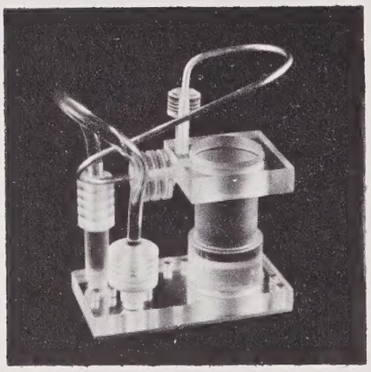
Martha Glowacki, Student Representative, UW-Madison

Dear Joel (Bagnal, secretary-treasurer of SNAG):

In reply to your letter of November 30, 1976, informing me that I am one of five people selected to give a paper at the forthcoming conference, I wish to respond to the two points you raised as being potential difficulties. I will start with the simplest, namely the question of grant overlap. My paper which would deal with the application of spray etching of photo resisted non-ferrous materials to achieve controlled, deeply etched images, has been funded by a research grant from Temple University, and therefore does not in any way, that I know of, create a conflict between the SNAG-NEA grant and my current research funding.

I would now like to address myself to a far more serious matter. You have indicated that only dues paying members in good standing will be allowed to deliver papers to the forthcoming conference, and have accurately pointed out that I have not been active for the past three years. This action of the board, in responding to my sincere wish to exchange information on a purely voluntary basis, should be an indication to the board and the membership at large, of the type of thinking that has caused me to lose interest in SNAG. To say that only members of SNAG will be allowed to make contributions of this nature is in my opinion short-sighted and selfishly narrow minded. As a founding member of SNAG, I know that one of the motivating factors for its formation was the desire to enhance educational opportunities for its members. I know of no other professional organization which limits contributions of knowledge only to its membership. As a matter of fact, I have delivered papers on a number of occasions to meetings of the American Electroplating Society, and never once has it been suggested that I join the organization in order to continue to be allowed to provide the AES with the benefits of my experience. I need not go on to site examples of other professional organizations to make my point.

I would also like the board to know that the dues structure, as it now exists, is much more than I can afford. In discussing this problem with my graduate students who would like to become active in SNAG, and who will be future contributors to the field, I find that they also feel the dues to be prohibitive. In adhering to the current dues structure, a great deal of voluntary energy is being directed away from the organization. I think that if SNAG were to avail itself of the numerous volunteer efforts, it would find that it could rather easily reduce its dues and become a far more useful organization. I do not think it should come as any shock to hear that SNAG has been rather frequently referred to as an "elitist organization". If this elitism were based on the uniform high quality of the contributions to the field made by its membership, I would have no difficulty with maintaining my association. But this is not the



James Ramzy
University of Washington, MFA
"Two ring forms"

case. It seems to be an economic and political elitism, to which I cannot subscribe.

I would like to site one major volunteer effort which I believe to be the only positive thing holding the organization together at this point: Mark Baldridge's efforts as editor of GOLDDUST, and on a lesser scale, the contributions being made by numerous members and students to the pages of GOLDDUST. This clearly indicates to me the great creative potential available to the organization. Many members of SNAG are close personal friends and as a matter of fact, virtually all participants in the recent NEA sponsored Electroforming Workshop here at Tyler this summer were SNAG members. On an individual basis, I have great respect for the SNAG membership and my experience working with SNAG members this summer was most gratifying. I am at a loss, however, to explain what occurs when otherwise sincere, intelligent, committed individuals come together to form an organization which works to inhibit free exchange of attitudes and ideas. Perhaps someone in the organization reading this and having greater insight than mine will take the time to explain it to me.

As someone who has contributed to our field, and who wishes to continue to do so, I would ask the board to reconsider its actions. I hope it is recognized by all who read this that I have very little to gain personally from offering to contribute information to the membership. I do so only out of my belief, which has been strengthened by my past 14 years of teaching, in the values to be derived from free exchange of ideas. Only in this manner can we find truth.

I am awaiting your reply. I hope that you all have a happy and prosperous new year.

Stanley Lechtzin
Professor & Chairman
Crafts Department
Temple University

Dear Stanley [Lechtzin]:

We received your letter of January 12 today expressing your feelings concerning the presentation of a technical paper at the annual conference and concerning the dues structure of the Society.

The intention of the Board's letter of November 30th was to communicate not that it wished only active members of the Society to participate in the free exchange of information within its activities. The intention was instead to let you know that under the **specifications of the grant** that those five parties chosen to present their papers and have them published must be active members of the Society, (knowing that in your case that presented a problem which needed to be resolved). Further, the intention was to inform you that there would also be a problem if your research overlapped any other NEA grant.

That there was a misunderstanding concerning the membership requirements of the technical papers grant, is partly my responsibility as Secretary-Treasurer for not seeing that it was spelled out more clearly. For this I offer an apology.

The entire Board and I am sure the entire membership respect your longstanding contributions to our profession and hope that whenever it is possible you or anyone else will continue to share any information of an educational and professional nature with the Society as a whole, regardless of your status as a member; that has been one of the prime reasons for the success of the newsletter: people sharing with each other. To that end, the Board wishes to invite you, if you should wish to do so, to present your paper at the Seattle conference in addition to the five papers to be presented under the NEA grant. Your research in spray etching will be of great interest to the members, and we do hope you will be part of the program.

The present dues structure was chosen from among several alternative models by vote of the membership last year. It has, we feel, a great deal of flexibility built into it based on both professional progress (levels of membership) and financial ability (levels of income). The level of income is established by the pro member him or herself and kept in strictest confidence by the Society's secretary. With the new quarterly statements, a pro member can maintain active membership for as little as $12.50 per quarter.

In the past seven years since you and the other charter members formed the Society its membership has grown to 430 members. Although virtually all of the educational activities (such as the fine efforts of Mark Baldridge) remain on a volunteer level, the administrative needs of an organization this size (growing at a rate of 75 to 100 members per year) are simply too demanding to be satisfied by volunteer effort. I am here to testify to that fact as are several other officers who have lived through that phase prior to hiring a half time secretary. Postage, printing, phone bills, secretarial salary, and all the other necessary underpinnings of the educational activities for which the Society exists, cost money. My own experience has shown me without a doubt that the Society has long since passed the point in size of membership, activities and goals where all-volunteer help and nominal dues can sustain it. On this matter I cannot hope to change your feelings, I can only state how, based on my own experience, I see the situation and hope for mutual respect of our differences.

In closing, I must say that I feel a slight bit "in the middle" of things having received your letter addressed to me in answer to a letter from the Board as a whole, (composed originally at the Toronto Board meeting late last fall). And so in responding as Secretary-Treasurer, please understand that the letter contains both my own opinions related to the dues structure and the sanction of the Board as a whole in their invitation for you to attend the Seattle Conference.

Personally Stanley, I hope for the day when you can feel that it is possible to be an active member in the Society again. Certainly not for the money you would pay. The Society, if it is to realize its potential, needs fine professionals like yourself who can speak with conviction and search for those positive compromises which will help the Society grow and mature.

My best to you,
Joel Bagnal, Secretary-Treasurer

Dear SNAG Friends,

I have been overwhelmed by the many get-well wishes I have received from various parts of the United States and Canada.

It was heartwarming to receive letters, while I was in the Eye-Clinic in Barcelona, Spain, and later from many of you when I had returned to Canada.

Heikki Seppa was in particular aware of my eye-problems when he sent me a cassette recording with the voices of all the participants of the electro-forming workshop in Philadelphia. At that time I could not read at all and my wife did all the reading for me. However, with the recroding it was simply a matter of listening to the various, often hilarious, comments of my fellow metal-bashers.

Now, after a total of six operations, I am still not sure whether or not we will be able to make the conference in Seattle.

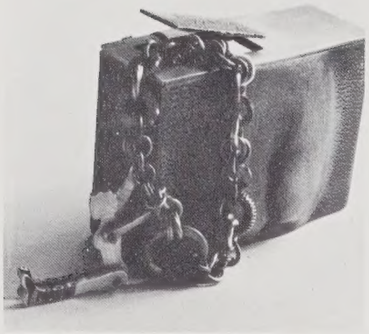
If we do, I hope to thank you all personally for the warm friendships you have shown me during this trying period.

Hero W. Kielman
1829 Bickford Dr.
Clarkson, Mississauga
Ontario, Canada, L5J 2K2

Dear Editor:

At the risk of creating (through innate ability) a tempest in a teapot, I must respond to Heikki Seppa's polemics. First of all, Harold O'Connor gave us the benefit of his opinion. Secondly, I doubt that he meant it to be a formula or construed as such. This opinion was solicited by whomever posed the question. Mr. Seppa seems to feel that the opinion of others are worth a giggle and instead of giggling quietly under his workbench, he sees fit to giggle in print. Such professionalism!! Most impressive.

There appears to be, at present, two schools of thought as to what makes an artist-craftsman successful. There is the boogie school and the benchwork school. If Mr. Seppa's remarks, opinions(?), are an example of the former, give me the latter.
(Judith Larson Angus)



Deborah Nore, MA
Humbolt State University
"Container for a Fool"

EXHIBITION OPPORTUNITIES

Duluth, Minn.—April 3-May 8. Lake Superior International Craft Show. Tweed Museum of the Arts. 2400 Oakland Ave.

San Diego, Calif.—Small Sculpture Competition. April 16-May 13. The Sculpture Gallery, Etc., 3030 Fifth Ave., San Diego, Ca. 92103.

Sterling Today Competition: This competition is open to all U.S. residents who are students in a course of design at the college, technical or graduate level. Entrants may submit one piece, other than articles of personal adornment, designed for functional use or aesthetic display. Working drawings must accompany the piece showing details of construction. Other materials may be used with sterling, but sterling must predominate. Deadline is May 2. Awards total $1,750. All entrants are reimbursed for eligible entries at the rate of $3 per troy ounce for the first 25 ounces and $1.50 for an additional 25 ounces. The Gustav Niemeyer Memorial Educational Fund will also present matching awards to the schools attended by the 5 prize-winning students. Judges are Jonathan Fairbanks, John Hamilton, and Stanley Lechtzin. Entry blanks and complete information can be obtained from Sterling Silversmiths Guild, 1111 E. Putnam Ave., Riverside, Conn. 06878.

Auburn, Mass.—May 10-14, Auburn Mall Arts and Crafts Show, open to all original art, sculpture and crafts. Fee $60. No commission. Send photos with request for application. Contact Mall Marketing Service, Inc., 1200 Mass. Ave., No. 42E, Cambridge, Mass. 02138.

Charlotte, N.C.—July 10-12. Wholesale Craft Show, Charlotte Civic Center. Buyers must qualify for show admission. Write Southern Show, Inc., A-340 Merchandise Mart, Charlotte, N.C. 28205. Attn. Robert Zimmerman.

Asheville, N.C.—Craftsman's Fair of the Southern Highland Handicraft Guild, Civic Center, Asheville, N.C., July 11-15.

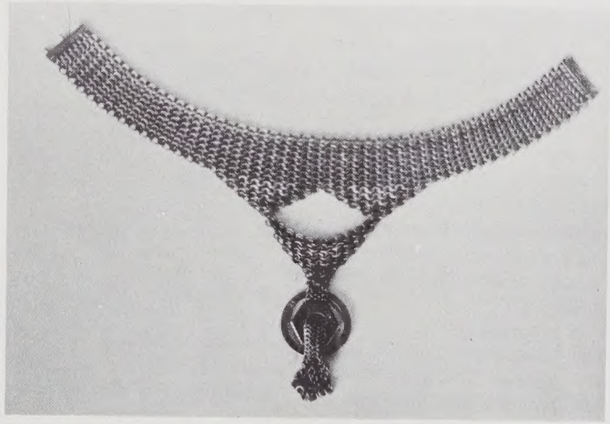
Cooperstown, N.Y.—42nd Annual Exhibition of Arts and Crafts, Cooperstown Art Assn. July 24-Aug. 25. $3000 in prizes. For information on jury selection and applications, write: Cooperstown Art Assn., 22 Main St., Cooperstown, N.Y. 13326.

Layton, N.J.—Peters Valley Craftsmen will sponsor an exhibition titled "The Gourmet's Choice" at The Gallery, Sept. 24-Nov. 13. Open to craftsmen in all media involving the preparation and serving of food. Slides accepted for consideration now until Aug. 3. Contact Molly Mechem, Peters Valley Craftsmen, Layton, N.J. 07851.

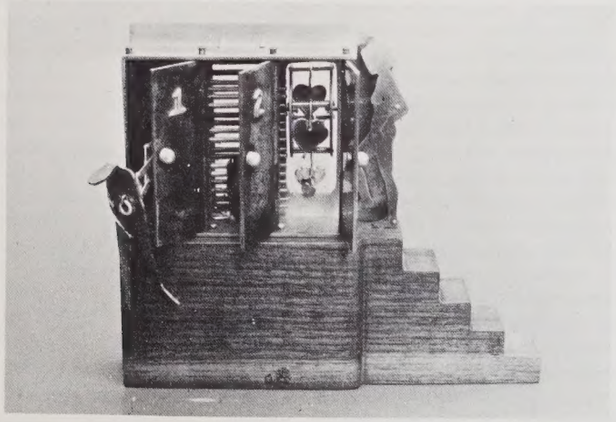
Marietta, Ohio—Marietta College Crafts National '77. $5000 in prizes and awards. Open to crafts and sculpture in all media. Slides due by Sept. 10. Write Arthur Winer, Director, MCCN '77, Marietta College, Marietta, Oh. 45750.

Knoxville, Tenn.—Craftsman's Fair of the Southern Highland Handicraft Guild, Civic Coliseum, Oct. 18-22.

Jack Silva, Humbolt State U., M.A.
"Evolution '76"
lady elmhearst feathers



Connie Jeffrey, Humbolt State U., M.A.
necklace
copper & brass



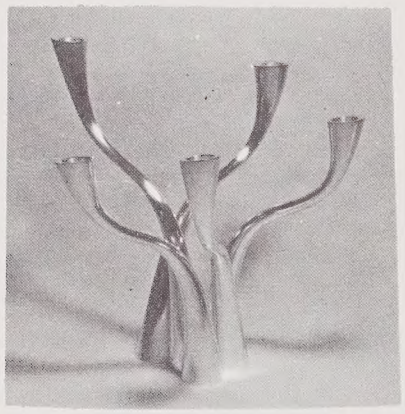
Deborah Nore
Humboldt State University, MA
"Choose your Life behind door No. 1, No. 2, No. 3"

HUMBOLT STATE UNIVERSITY

Philadelphia, Pa.—November 3-6, Philadelphia Craft Show sponsored by Philadelphia Museum of Art, juried, 10x10 booth cost $75. Prizes, 120 artists; must submit five slides with $5 to Ms. Robert Dripps, Women's Committee, Philadelphia Museum of Art, 25th and Benjamin Franklin Parkway, Philadelphia, Pa., 19101. Deadline July 9. For information, write above or call 215/275-5987 or 215/242-6288.

Stephen Roehl
Rochester Institute of Technology, BA
teapot

## EXHIBITIONS



Jon A. Hall
Rochester Institute of Technology
Candelabra

Washington, D.C.—Permanent gallery at the National Collection of Fine Arts at the Gellatly Gallery of the Smithsonian, which opened Oct. 18, 1976. Includes metalworks and jewelry from the 11th and 17th centuries. A few of the works in this collection include a Renaissance baroque pearl pendant; 13th century Limoges enamels; and a 17th century German marriage ring. The National Collection of Fine Arts is at 8th and G Sts., N.W.

Richmond, Va.—Virginia Museum, Feb. 14-May 1. "Salvador Dali's Art in Jewels", an exhibition of a collection of Dali's own preliminary sketches and watercolors for the jewelry on exhibition. The exhibition of jewels will remain on long-term loan to the Virginia Museum.

Las Vegas, Nev.—April 3-29. National Art Round-Up, Las Vegas Art Museum. Deadline Jan. 20.

Tucson, Ariz.—Copper, Brass and Bronze Competition, University of Arizona, April 4-May 15. Deadline is Feb. 13.

Chicago, Ill.—April 15-Aug. 15. (Treasures of Tutankhamun. National Gallery of Art.) Chicago's Field Museum. Future stops include New Orleans Museum of Art, Sept. 15-Jan. 15, 1978; Los Angeles Museum of Art, Feb. 15-June 15, 1978.

Brookfield, Conn.—April 17-May 22. The Brookfield Craft Center is sponsoring the pewter work of Frances Felton entitled "Frances Felton Retrospective". The exhibition is open daily from 2-5 p.m.

Winston-Salem, N.C.—May 1-31. Exhibition of new members' work at the Piedmont Craftsmen, Inc., 300 S. Main St., Winston-Salem, N.C., 27101.

Rhinebeck, N.Y.—June 20-26. 12th Annual Northeast Craft Fair of the ACC. Deadline Feb. 15.

Seattle, Wash.—June 23-July 31. The Metalsmith at the Henry Gallery. University of Washington. Sponsored by SNAG, Phoenix Art Museum & University of Wash.

San Francisco, Calif.—Aug. 11-14. Juried Show, sponsored by the Southwest Region of ACC in cooperation with Golden Gate National Recreation Area. Deadline March 15.

Layton, N.J.—Exhibit in The Gallery, Peters Valley Craftsmen, Aug. 20-Sept. 11. "6 Metalsmiths", featuring works of Glen Gardner, Ulle Lepasaar, Tom Mann, Susan Lange, Susan Cohan and Gayle Saunders.

## ROCHESTER INSTITUTE OF TECHNOLOGY

## LECTURES—WORKSHOPS—CONFERENCES

The American Crafts Council is conducting a conference to be held in Winston-Salem N.C. at the Wake Forest University June 7-11. The main topics of the conference will be the historical and contemporary craft community and the individuals involved, and the needs, problems and some solutions facing the working craftsperson. Lectures, demonstrations, presentations, seminars, discussions, forums and clinics will be presented during the conference. Also, slide shows and updates in ceramics, glass, metals, enamels, woods, plastics, etc.

For information concerning registration, write to ACC/NC '77, 44 W. 53rd St., N.Y.C., N.Y., 10019.

## WORKSHOPS

1. Peters Valley Craftsmen will offer the following workshops in blacksmithing: Blacksmithing/R. Griffith, June 27-July 8; Basic Blacksmithing/Daryl Meier, July 11-22; Ornamental Blacksmithing/Thomas Markusen, July 28-30; 18th and 19th Century Forged Iron/Peter Ross, Aug. 1-5; Bladesmithing/William Moran, Aug. 8-12; and Blacksmithing for the Metal Craftsman/Glen Gardner, Aug. 22-Sept. 2. Workshops in Jewelry: Sheet Construction/Chuck Evans, June 27-July 8; Electronics, Plastics and found objects in Jewelry/Robert Natalini, July 11-15; Primitive Techniques in Contemporary Goldsmithing/Barry Merritt, July 18-22; Chasing and Repousse/Michael Tomlinson, July 28-30; Production Jewelry/Thomas Mann, Aug. 1-5; Apersonal Approach to Design and Techniques/Susan Coahn, Aug. 8-12; Enameling/Pamela Hassler, Aug. 15-19; Casting/J. Fred Woell, Aug. 22-Sept. 2.

Call or write to Peters Valley Craftsman, Inc., Layton, N.J., 07851, (201/948-5200) for workshop descriptions and tuition information.

2. Blossom Kent Art Program, workshops July 25-Aug. 26, at Kent State University, Ohio. Visiting artist for the metal workshop (one per week) include Arline Fisch, Robert Von Neumann, J. Fred Woell, and William Neumann. Resident artist is Mary Ann Scherr. Scholarships available; everyone must apply for entrance; send a maximum of 12 slides or portfolio. Deadline May 11, 1977. Apply to Professor Harold Kitner, School of Art, Blossom Kent Art Program, Kent, Ohio, 44313.

3. Brookfield Craft Center Spring and Summer Workshops '77. Casting/Jewelry—April 16-May 7, Saturdays and Sundays, $70; Cloisonne Enameling—April 19-May 10, Tuesdays, $52; Masonite-Die-Forming—May 16-20, Monday thru Friday, $50.

The Center will also offer the following summer workshops: Masonite Die Forming, July 5-9, with Claudia Kuehnl; Basic Jewelry, July 11-15, Kuehnl; Experimental Enameling, July 18-22, Koopman; Woven Jewelry, July 25-29, Aug. 1-12, G. van Duinwyck; Metal Assemblage, Aug. 15-19, Chasing,Aug. 22-26. For more information, write or call Brookfield Craft Center, P.O. Box 122, Brookfield, Conn., 06804 (203/775-4526).

4. Dunconor Workshops '77 Summer Sessions, advanced jewelry instruction, Harold O'Connor, instructor. Sessions: No. 1, June 13-25, No. 2, June 27-July 9, No. 3, July 25-Aug. 6; 90 hrs., $190. Workshop on Casting Methods, July 11-23, 90 hrs., $190. For information concerning registration and fees, college credit, etc., write Dunconor Workshops, Box 2000, Crested Butte, Colo, 81224.

5. Haystack Mountain School of Crafts, classes in jewelry offered, June 19-July 9, instructor, Marcia Lewis; July 10-29, instructor, Patty Daunis-Dunning; July 31-Aug. 19, instructor, Svetoza Radakovich; Aug. 21-Sept. 9, instructor, Rena Koopman. For information on cost and registration, contact Haystack Mountain School of Crafts, Deer Isle, Maine, 04627.

6. Jewelers' Circular/Keystone sponsored workshops on controling your inventory and saving money, run by the Management Growth Institute of Wellesley Mass., will cover cost control, wise buying, cash flow and more. Workshop dates: April 14-15, Wichita, Kan.; April 21-22, Hollywood, Fla.; July 14-15, Spokane, Wash. For further information, contact Tony DeMasi, Jewelers Circular/Keystone.

7. Penland School of Crafts, Summer Session 1977. Classes offered in jewelry: May 30-June 10, instructors Hiroko and Gene Pijanowski; June 13-24, Bill Newman; June 27-July 15, Debra Lynn Gold; July 18-Aug. 5, Heikka Seppa; Aug. 8-26, Sandra Zilker; Aug. 29-Sept. 16, Drewry Hanes. Classes offered in enameling: May 30-June 10, Jamie Bennett; June 13-24, Barbara Mail; June 27-July 15, Fred Ball; Aug. 8-26, Bill Helwig; Aug. 29-Sept. 16, Mel Someroski. For complete information on cost, registration and college credit, write Penland School of Crafts, Penland, N.C., 28765.

8. Arrowmont School of Crafts: June 27-July 1—Enameling with Mary Whisonant/June 27-July 8—Jewelry with Eleanor Caldwell/July 4-8—Enameling with Kenneth Bates/July 11-22—Enamels with Florence Illman & Jewelry with Francis Stephen/July 25-29—Jewelry with Michael Croft & Electroforming with Eleanor Moty/August 1-5—Enameling with Helen Worrall & Jewelry with Michael Croft/August 8-19—Jewelry with Al Anderson

Graduate and undergraduate credit available, room costs $80-$100 per week, tuition is $75 per week, plus $25 for fees.

Write Arrowmont School of Crafts, Box 567, Gatlinburg, Tenn., 37738 (615/436-5860) for more information.

**THE SOCIETY OF NORTH AMERICAN GOLDSMITHS SEATTLE '77 CONFERENCE/ EXHIBITION AND ANNUAL MEETING**

Conference Registration Fees:

| | |
|---|---|
| Member | $40.00 |
| Non-member | $50.00 |
| Student | $20.00 |
| Non-participant | $26.00 |

Make checks payable to:

Seattle–SNAG Conference

Reservation Form — complete and return, or send a xerox copy to:

John Marshall
S.N.A.G. Conference '77
597 Washington Street
Wellesley, Mass., 02181 — phone: 617/235-8266

Please make the following reservations:

NAME _____

ADDRESS _____

_____

SNAG AFFILIATION _____

The Society of North American Goldsmiths will hold its 1977 Conference in Seattle, June 23, 24, and 25. The Conference will be held in conjunction with the Society's National Competitive Exhibition which previewed at the Phoenix Art Museum last January. The exhibition will be on display at the Henry Gallery on the University of Washington campus June 24 to July 24. There were 800 entires and 200 were selected for the exhibition. This is an unprecedented conference and exhibition in the northwest. Along with the SNAG exhibition, there will be a retrospective exhibition of works by the late Olaf Skoogfors.

The main focus of the conference will be five technical papers given by professional members of the Society. The Society received a National Endowment for the Arts Crafts Program, Visual Arts Program grant to help support the publication of these papers. This is a matching grant situation and a point of interest is that the NEA has agreed that the donation of time by the craftsperson, for research and writing, constitutes the matching gift-in-kind, with the actual grant covering a modest stipend for technical research materials, manuscript typing and editing, and printing costs. Each participating craftsperson will be able to deduct this matching amount from his/her income tax as a contribution to a non-profit organization. It is believed this is setting a precedent in having the Internal Revenue Service acknowledge the craftsperson's time as having a monetary value.

The following people were invited to present the results of their recent research:

1. Tom Markusen—The Application of Hot Smithing Processes to Non-Ferrous Metals: Copper, Bronze, Brass and Silver.
2. Marc Paisin—Hydraulic Pressing and Die-Forming Methods. Included will be the detailing of constructing an inexpensive press.
3. Gene & Hiroko Pijanowski—Fusing (not soldering) of Japanese Non-Ferrous Alloys to produce Mokume. Also included will be the initial preparation of the alloys.
4. Heikki Seppa—The Use of Shell Structures in Constructing Hollowware and Jewelry.

At this time, plans for a fifth presentation are not finalized.

It is planned that the presentation of papers by members become an annual feature of the SNAG conference.

Also included in this year's conference will be a Student Research Exchange organized by the University of Washington metal students, a lecture by Professor Bill Holm, curator of the Burke Memorial Washington State Museum, on Northwest Coast Indian Art, a film presentation about the Society and its members by Sandy Zilker of the University of Houston, a special exhibition of jewelry at the Seattle Art Museum, a boat ride across Puget Sound to Kiana Lodge at Agate Pass for a salmon bake, and a display of works by University of Washington metal design students. Other events will include a Seattle Highlights sightseeing tour, an exhibition of jewelry by Northwest artists at the Northwest Craft Center at the Seattle Center from June 23-July 5.

The Society is hoping for a large turn-out of students from across the country, and their greater participation in the conference.

Elena Canavier of the National Endowment for the Arts, Paul Smith, Director of the Museum of Contemporary Crafts, and Mrs. Judy Skoogfors, wife of the late Olaf Skoogfors, will be guests of the Society at the conference.

## SNAG CONFERENCE REGISTRATION INFORMATION

Headquarters for the conference will be the University Tower Hotel, 4507 Brooklyn Ave., N.E., Seattle, Wash., 98105. Phone: 206/634-2000.

Rates for rooms are: $28 for two nights, double occupancy; $44 for two nights, single occupancy.

Conferees may also make reservations for the University of Washington dormitory. The rates are for Thursday and Friday evenings only. Check-out time is Saturday noon. $6 per night, double occupancy; $8 per night, single occupancy.

The University does not encourage the request for single rooms. Washroom facilities are gang style, towels are included. There is a lounge and phone on each floor.

No meals are included in either the University Tower Hotel or the U.W. dorm rates.

Registration Fees: $40-members; $50-non-members; $20-students; $26-non-participating non-members (wives & guests).

The registration fee includes the boat ride and salmon bake at Kiana Lodge, the Opening Banquet, social events, and transportation to the Seattle Art Museum.

Please make checks payable to: Seattle-SNAG Conference. Send reservations to John Marshall, Conference Chairman, SNAG Conference '77, 591 Washington St., Wellesley, Mass., 02181. Phone 617/235-8266. For further information on the west coast, contact Donna Barnes, SNAG Conference Coordinator, 519 W. Roy St., No. 405, Seattle, Wash., 98119. Phone: 206/283-0621.

Reservation deadline: June 6, 1977.

The tour package includes four nights hotel, one sightseeing tour, round trip airport transfer and baggage handling. Tour package expenses are $115 for single room and $85 for double. The package is being handled by Penny Nicholas, Adventures Unlimited, 1600 Forest Ave., Richmond, Va., 23228.

The tour package is good for cities east of Denver, but specifically Chicago, New York, Boston (this plane stops in Minneapolis and passengers may board here), and Washington, D.C. Flights from other cities may be added if more than 20 people depart (contact Adventures Unlimited).

The sightseeing tour is of Seattle highlights. Pioneer Square (renovated area of the original downtown Seattle), Pike Place Farmer's Market, The Hirma Chittendam Locks and view of the fish ladders, and the King Dome (not inside).

Although the hotel is a little more expensive in the tour package, the air fare saves about 25% which is more than enough to compensate. In addition, tour package includes transfer to the hotel. Direct any and all inquiries to Adventures Unlimited.

## SNAG SEATTLE CONFERENCE
**Revised Schedule**

**June 23, Thursday**
9-12—Registration; coffee, social, at University Towers
10-11—University of Washington, Open House
11-12—Sandy Zilker's slide presentation, U. of W., Kane Hall
12-1—Lunch at the Hub or Undergraduate Library
1-4—Technical Papers I & II presented at Kane Hall (1½ hours each)
4:30-6—No-host bar at University Towers
6-8—Opening Banquet at University Towers; speeches and schedule changes
6-11—Opening of SNAG show at the Henry Gallery (U. of W. Campus)

**June 24, Friday**
7-8:30—Breakfast
9-11—Business Meeting at University Towers Conference Room
11-12:30—Technical Paper III presented at Kane Hall
12:30-1:30—Lunch
1:30-3:30—Bill Holm's lecture at Kane Hall
4:00—Bus leaves for boat tour to Kiana Lodge for Salmon Bake
9:30—Boat leaves Kiana for Seattle

**June 25, Saturday**
7-8:30—Breakfast
9-12—Technical Papers IV & V presented at Kane Hall
12-1—Lunch on Campus
1-4:30—Shuttle bus service from University Towers to the Seattle Art Museum to see gold and metal collection
2:30-5—Seattle highlights sightseeing tour
5-7—Farewell Party (no-host bar) at University Towers

(The Burke Memorial Museum on the University of Washington campus will also have a special display of their collection of jewelry during the conference).

SOCIETY OF NORTH AMERICAN GOLDSMITHS
ART DEPARTMENT
LONGWOOD COLLEGE
FARMVILLE, VIRGINIA 23901

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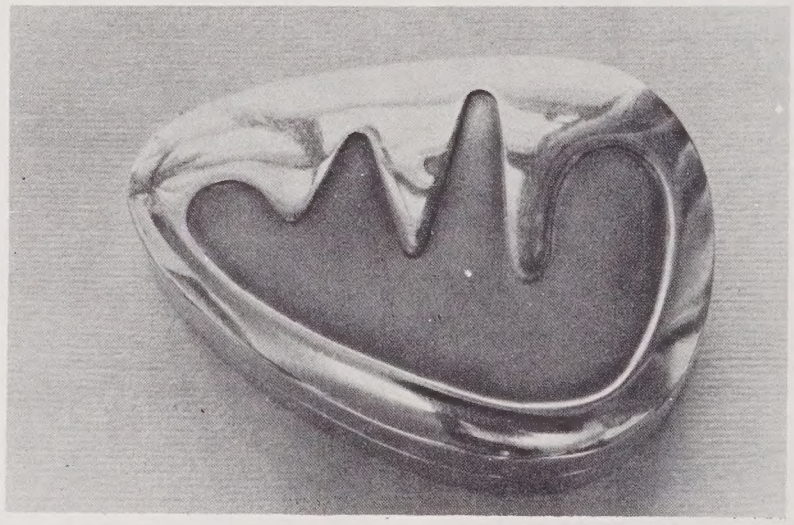
## SOURCES

To obtain fancy drawplates, try either of these firms: Joseph Max Schmalz, Museumstr. 4, 7530 Pforzheim, West Germany, or Wilhelm Woeckel, 7000 Stuttgart 50, Postfach 50, 1269, West Germany. You can either send them drawings for desired shapes or send for their catalog which has some shapes. (H.O.)
"Photo-Etching", from J.C.

For supplies, bibliography and notes for photo-etching, refer to *Photography in the Crafts*, **$4**, J. Fred Woell, Dow Rd., Deer Isle, Maine, 04627. (E. Moty)



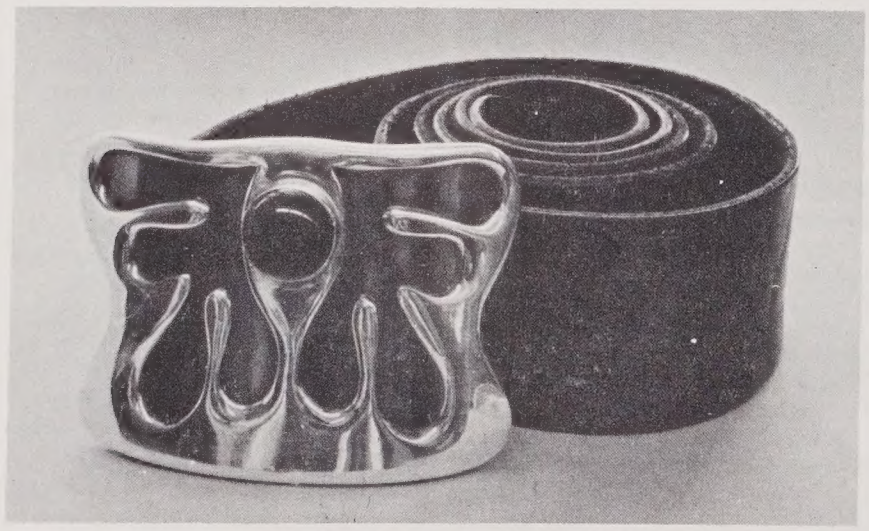
Anne Barros, Humber College
pillbox

Gill Heath, Humber College
wedding rings

Adrienne Van Riemsdijk,
Humber College
sterling chain

HUMBER COLLEGE (Toronto)

Ross Ashley, Humber College
belt buckle



## JOURNAL POLICY

Published bi-monthly by the Society of North American Goldsmiths (SNAG), 591 Washington St., Wellesley, Mass., 02181. Bob Ebendorf, President; Mary Lee Hu, Vice President; Joel Bagnal, Secretary-Treasurer; Board Members: Hero Kielman, Tom Markusen, George McLean and Mary Ann Scherr. SNAG is a non-profit organization for educational, scientific, and aesthetic purposes, concerned with fostering, encouraging and teaching the subject of metalsmithing. SNAG is registered with the Internal Revenue Service Sec. 501 (c) (3). Subscription (per year) is automatic with SNAG membership. Address all membership and advertising inquiries to Joel Bagnal, SNAG, 591 Washington St., Wellesley, Mass., 02181. Address unsolicited material to Editor, THE JOURNAL, Art Dept., Longwood College, Farmville, Va., 23901. Material will be handled with care, but THE JOURNAL assumes no responsibility for it. Since many letters received are of interest to the entire membership, unless specifically stated to the contrary, all received letters risk possible inclusion in the Letters-to-the-Editor section.

Deadline dates for submitted material shall be 25 days prior to issue date. Projected issue dates are June 1, Aug. 1, Oct. 1, etc. Please Note: If you do not receive THE JOURNAL within 15 days of the issue date (and if you are a member) please immediately write to the editor. THE JOURNAL was initiated by a grant from the Crafts Program of the National Endowment for the Arts, to whom we are grateful for its continued support.

Many people have requested back issues of GOLDDUST. Since most back issues do not exist, xerox copies will be sent upon request. Send $1.00 per copy (to cover duplicating and postage) to Mark Baldridge, Longwood College. Do not send cash; send check or money order made out to SNAG. Copies date from August 1, 1975.

If you know of metal/jewelry people who might be interested in receiving one free issue of THE JOURNAL simply forward their name, address, & zip code to the Editor. If you are attending craft fairs, you might collect name cards from interested participants so that they could receive a complimentary issue.

If you would like THE JOURNAL mailed to you first class, send the Editor two stamps per issue desired.

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Assistant Editor/Lynda Baldridge
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## TECHNICAL INFORMATION

NOTE: Crock pots don't work for acid pickle. The pickle sweats through the ceramic liner and fries the heating element. (M. Lewis)

For gold lettering on ribbons or cloth, use a rubber stamp and regular printers' ink, then sprinkle on some gold bronze powder. When dry the surplus powder can be brushed off. (American Jeweler, compliments of Beetler)